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LITERATURE AND MORALS.¹

By C. A. WALSH, B.A.,
University of Sydney.

I SHALL not attempt to answer the questions raised by any definition of literature or of morals; but some consideration of what is meant by "morals" is a necessary preliminary to my argument, as I am about to postulate certain principles of morality. There are obvious variations in the meaning of "morality" in different societies, according to their different stages of development and their racial peculiarities. There are, further, considerable changes in any given society over a period of time. Yet in morals, as in nature, there is no complete lack of uniformity. In the main, men have agreed, at any rate as soon as they have begun to constitute an organized community, on certain fundamental canons of conduct, and on certain prohibitions or restraints. *Mos*, in origin, meant a "guiding rule of life", the adjective *moralis* being coined therefrom to denote that part of philosophy which concerned the *mores*. Now this idea of a guiding principle gives a clue to a distinction, which I wish to emphasize, between "morality" as a system of ideal rules of conduct and "life" or "behaviour", made up of the actual complex doings of men. If a system of standards of conduct is generally accepted, individual acts will be judged by reference to these standards; good morals will consist in conformity to the standards, and immorality in deviation therefrom. It may be objected that it is invalid to make a distinction between the ideal and the real, between what ought to be and what is. But that there is any such division of reality is only apparent. The question is really one of classification. Out of all the range of human activities, the people of a society, in formulating a moral code, are deciding, with reference to actual events, that some things ought to be and others ought not to be; the former are moral, the latter immoral, and there is left a large number outside either class. So we divide or classify objects into white, black, and a third class excluding white and black. So far as morals

¹ Read before the Sydney Local Branch of the Australasian Association of Psychology and Philosophy.

evolve by slow degrees, as they certainly do, it is not a question of imposing an arbitrary imprimatur or veto; the moral code is built up out of the "mores", or actual habits of men.

Now what respect, if any, must literature pay to moral principles? Even a man with the strongest abhorrence to what is to him immoral must still recognize the existence of immorality. He cannot reasonably look to literature to preserve him from all contact with the immoral, thereby confining itself to one section of life. Literature cannot exist simply as an exposition of the moral code. In fact, if the "immoral" were completely shut out from literature, it could not be moral at all; for if everything of which cognizance is taken is called moral, then the very word "morality" ceases to be significant. If every visible object in the world were of the colour we now call white, we should not speak of colour at all.

It is beyond dispute, then, that immoral things form a legitimate part of the *material* of literature. That being so, the artist must be taken to have the best knowledge of the most suitable material for his purposes, and he should be conceded unlimited freedom in the selection of his matter. It is foolish for mere ordinary people to attempt to dictate to the man of clearer vision and finer imagination than they; to tell him in effect that he must not express his own message but only reveal to people what they say he is to reveal. Any such ultimatum to authors is mere impertinence. Arnold Bennett tells a story of this method of criticism: "'Wells?' exclaimed a smart, positive little woman—'one of those creatures that have settled every question once and for all beyond reopening, Wells? No! I draw the line at Wells. He stirs up the dregs. I don't mind the froth, but dregs I—will—not—have!' And silence reigned as we stared at the reputation of Wells lying dead on the carpet."

In choosing his subject, then, the literary artist has a right to unlimited freedom. But he has no such right in the *treatment* of his material. No stigma can justly be attached to an author simply because he is outspoken on subjects on which reticence is the general rule. But if he holds up moral beauty to contempt, makes light of goodness, travesties beautiful and sacred things, exalts and embellishes profligacy, or dabbles in filth for its own sake, his work should be relegated to the oblivion it deserves. This I hold for purely artistic reasons, apart from the moral question. For the bad and the ugly have no true place in art. The beauty of moral goodness is not merely analogous to, but in the last resort is identical with, the beauty that is the essence of art. "Art", wrote an earnest Australian poet, "is for the Good and the

True by way of the Beautiful." Regarding literature more æsthetically than O'Dowd, I prefer to say its Art is primarily for the beautiful, but I am convinced that it can only achieve the beautiful by way of the good and the true. A book cannot give the reader that sense of satisfaction which the highest art does give, if there is that in it which disturbs his sense of beauty and of the fitness of things.

Now it is worth while to note that the taste of a reader who can be considered a competent judge of literature must, without doubt, have been formed by association with work that does not offend fundamental morals in the way I have suggested. For the best of our literature has been characterized by what I call moral beauty, not thereby excluding the treatment of immoral things. A few illustrations may be permitted in support of this belief, which nowadays appears to be falling into some discredit, accustomed as we are to outcries against the iniquity of any restraint upon Art, spelt with a capital A, and uttered in tones of outraged righteousness.

The Elizabethan drama has generally been acclaimed as the supreme triumph of that great age of English genius. Yet it has been vigorously attacked on moral grounds. Charles Kingsley argued at length to show that these plays are the expression of an utterly corrupt age, and, in most cases, are deliberately intended to exploit the popular delight in corruption. In certain cases this is so; but the fact is that Kingsley, like many present-day newspaper writers, confuses immorality of subject-matter with immorality of treatment. It is said nowadays that if we ban anything, we should also ban the Bible and Shakespeare. Kingsley exonerates Shakespeare, but condemns even the greatest of his contemporaries. Some of his remarks on Webster furnish an example of how literature can be misinterpreted when looked at from one narrow point of view. "The whole story of Vittoria Corombona", he writes, "is one of sin and horror. The subject-matter of the play is altogether made up of the fiercest and basest passions." So far he is stating facts. Now let us see what the facts mean to him. "To us the knowledge of character shown in Vittoria's trial scene is not an insight into Vittoria's essential heart and brain, but a general acquaintance with the conduct of all bold bad women (!) when brought to bay." Again, Vittoria is said to be like "the average of bad young women in the presence of a police magistrate". If this be true, bad young women are, on the average, very remarkable creatures. Certainly Vittoria is bold and bad; in fact in that lies her "essential heart and brain". But why should we not recognize what is admirable or what is true, even in such people. Surely we are shown clearly enough whither it all leads. The text that "the

wages of sin is death" was never more forcibly illustrated. The play is morally sound, and it is merely misunderstanding it to say it is not.

One could go on indefinitely discussing great creations, to support the contention that moral goodness is inseparable from the highest literary work. Consider the essential purity of "Tom Jones", full as the story is of lust, hypocrisy and meanness; the moral soundness, combined with uncompromising truth, of Thackeray; the restraint of the novels in the Forsyte series, full as they are of life and passion. The writers in these cases have worked out their views of life without transgressing the bounds of decency. If present-day writers cannot do so, let them not hide behind the holy name of Art, and wail their fatuous cries of "freedom of expression" and the "advancement of thought". Frankness is more common now than it was, and perhaps that is well. But it can still be overdone. "All Quiet on the Western Front" is a remarkable work, and I cannot understand what danger there is in it to morals. But there are expressions in it that are ugly, and therefore blemishes. I object to them as to an extraneous daub of mud on a painting.

In anticipation of possible objections to the view that I have been taking of the duty of the artist not to flout fundamental morality and common cleanness, let me say plainly that I fail to see any injustice or narrowness in the claim that a writer should subject himself to discipline. He must, of course, undergo the severe discipline imposed by his art itself; and he should be likewise amenable to restraint in the moral treatment of his theme. I ask you to remember that at present I am not discussing censorship. I do not say that any individual reader or critic has a right to dictate to the author. But if he transgresses the limits of decency, let him be judged accordingly, and let us have no nonsense about the divine right of artists to do anything, so long as it is in the name of art. Dirt is dirt, and immorality (*i.e.*, in the writer, not in the subject-matter) can in no circumstances be clean. If a writer cannot keep his work free from moral foulness, let him be censured as severely as are the physically unclean.

So far I have been concerned with the point of view of the writer and his literary critic, with the artistic aspect of the relation of literature and morality. The restraints of which I have spoken are those which are or ought to be imposed by the opinion of the judicious, not by any kind of officialdom. But in an address on "Literature and Morals", I feel bound to say something on the question of censorship. Now official censorship, although vitally important to the artist, has really nothing to do with art. It is essentially a social institution, the intention of which is to protect the community from some-

thing which is considered likely to be harmful in its results. The censor says in effect to the author: "If only yourself were concerned, I should be indifferent; but if you are morally diseased, you must not spread your disease through the community. If you persist in trying to do so, you must be put into quarantine."

The censor goes further and says that the author will not be allowed to broadcast ideas which may do damage to the moral life of the vulnerable crowd, although they may be harmless to the writer himself. In other words, if he carries the germs of the disease, although not himself infected, he must still be quarantined. I cannot see anything unjust in this attitude, nor any great force in the argument of those who declare that they want liberty to read what they like, that it will do them no harm, and that they should not suffer for the susceptibilities of others. Would these people, if they happened to be inoculated from a particular disease, argue that a person likely to spread contagion should be allowed complete liberty, even if that were some advantage to themselves? Surely not. Where, then, lies the injustice of this particular restraint imposed on the individual for the safeguarding of the mass? Such restraints are legion.

Why do not the ardent devotees of liberty who rage against censorship inveigh in like manner against the law of libel, as an interference with freedom of speech? They doubtless believe that that law is necessary for the security and stability of society. So, also, is the censorship of films, which seems to be accepted with much less opposition than that of books. So, again, are the criminal laws and the policemen that interfere with free action. If murder is a fine art, the sanctity of art might even be used as an argument against these. The truth is that we all admit that in an organized community there are things that must be prohibited, but the fact is often forgotten by those who attack censorship.

It is true, however, that the social character of official censorship may cause it to clash with the legitimate rights of the artist in obscuring that distinction which I have drawn between material and treatment in art. The ideal state of affairs would, of course, be complete freedom from censorship except that exercised by the opinion of readers; and this would, in the supposed ideal state, be directed solely against nastiness and the subversion of basic principles. The following words of St. John Adcock would then have real application: "You can never suppress evil by driving it underground; it usually flourishes longer there than it would have done if you had left it to look paltry and wilt in the common cleanliness of the sunlight." Things, however, being as they are,

and mental and moral sunlight being by no means universally distributed, censorship, if it is to serve its social purpose, must seek to protect the people from their own deficiency of understanding and taste. Hence it happens that the mere use of immoral things as material is regarded as socially dangerous. And so a work which is quite sound morally may be banned solely because of its subject. This I conceive to be the real handicap imposed on art by censorship; still, if it is really necessary, or rather if it could be made really effective as a moral safeguard, I should say Art must suffer, for morality is higher than art. In passing, I wish to protest against the modern tendency to identify morality with sexual morality, and, accordingly, to lay all the emphasis of censorship on sex. The tendency arises obviously from the social nature of censorship, to which I have referred. It is not that books dealing in other kinds of sin are less immoral than those which are based on sexual irregularities, but that pornography undoubtedly appeals more strongly to the crowd than blasphemy, or roguery, or any other contravention of morality that they might find in books. And it is precisely because of the eager appetite for sexual fare that censorship is apt to defeat its own purpose, by whetting that appetite instead of checking it. A book has only to be advertised officially as indecent to secure instant fame and popularity. The only way to keep such books from circulation would appear to be some system by which they could be blocked right at the outset, before they had any chance to get into circulation, or preferably before they were printed at all.

But it is scarcely to be expected that publishers should be either willing or competent to take the onus of censorship on themselves; and it must be conceded that the principle of censorship is an extremely difficult one to apply effectively and fairly. The present system in Australia is notoriously defective. For one thing, there is the coexistence of the two methods of "previous" and "subsequent" censorship. A book is liable to be banned before it is made available to the public; and, again, a book is liable to be pounced upon at any time and subjected to criminal prosecution. It has not only to satisfy the officials, but may be called to the judgment of a magistrate. The standards by which such cases are determined are extremely inconstant. It is very difficult to apply the precision of the law to such a question. It is so difficult to define obscenity. "Although we talk readily about obscenity, it is really as mysterious as electricity and no less dangerous. Everybody fears but nobody knows what obscenity is. . . . A book, or a play, or a picture, which was absolutely forbidden in one decade, causes hardly any excitement in the next. Indeed, a book which is banned as obscene on one

Monday by one judge is declared to be virtuous art by another judge the next Wednesday. A book that is judicially determined to be immoral in Boston is allowed to circulate freely in London and New York."¹

It is not in the courts that literature should be assessed. It is equally unsatisfactory that censorship should be in the hands of a public service officer, with no qualifications for the task. The censors should have some claim to speak with discrimination and authority. Film censorship is entrusted to specially selected men, and the example might well be followed in book censorship, although admittedly the magnitude of the task and the divergence of individual opinions, even among the elect, make the problem a difficult one. Someone will ask: *Quis custodiet ipsos custodes?* The answer is that to get anything done we must trust someone; and every time we elect a parliament or a committee, every time we appoint an official, we take the same risk.

It has been suggested that those who fear the effects of unlicensed printing should take upon themselves the responsibility and establish a censorship at their own door. Now this scheme would be an excellent one if every head of every family were a capable judge of morality in literature, and literature were accessible to the family only through him. The young daughter whom he meant to guard would almost certainly go afield and pluck the forbidden fruits. So the problem is no nearer to solution.

The fact is that most of the critics of censorship do not really face the problem involved, but pass it over to enlarge on their own rights. Recognizing a real problem, I believe that some form of literary censorship is necessary, and that at present the best method, although it has defects, is censorship by a group of capable educated readers, selected from those well versed in literature.

¹Seagle: "Cato, or The Future of Censorship."

ON A FRAGMENT FROM DEWEY.¹

By W. ANDERSON, M.A.,
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"MORAL and spiritual 'leaders'", says Professor Dewey, in his Gifford Lectures, "have propagated the notion that ideal ends may be cultivated in isolation from 'material' means, as if means and material were not synonymous." "Practical needs", he proceeds, "are imminent; with the mass of mankind they are imperative. Moreover, speaking generally, men are formed to act rather than to theorize. Since the ideal ends are so remotely and accidentally connected with immediate and urgent conditions that need attention, after lip-service is given to them, men naturally devote themselves to the latter." "Men", the resulting assumption appears to be, "have wants, and they must be satisfied. But they are only prerequisites of a good life, not intrinsic elements in it. Most philosophers have not been so frank nor perhaps so logical. But, upon the whole, economics has been treated as on a lower level than either morals or politics. Yet the life which men, women and children actually lead, the opportunities open to them, the values they are capable of enjoying, their education, their share in all the things of art and science, are mainly determined by economic conditions. Hence we can hardly expect a moral system which ignores economic conditions to be other than remote and empty."

As this type of "theorizing" is so widely attractive at the present time, and is in particular so largely relied upon by those who lose no opportunity to cry down the study of the classical philosophers in universities and elsewhere, it may be worth while to point out some of the elementary misconceptions on which Professor Dewey's argument rests.

Firstly, who are the moral and spiritual "leaders", now exposed by Professor Dewey, who have isolated "ideal ends" from "material [*sic*] means"? It is true that Spinoza has shown that we must eliminate things like riches, place and power, when we set out to define the true good of man. Kant has described the contingent and conditional character of the goods of birth and fortune when contrasted with the intrinsic worth of the good will. Socrates, too, in his time, demonstrated

¹ The Gifford Lectures of Professor John Dewey have now been published in book form, but details are not to hand here at the moment of writing. The extracts quoted below appeared recently in the columns of the *New Zealand Herald*. In themselves they are, to readers familiar with Professor Dewey's views, sufficiently recognizable as typical of what he advocates to provide a basis for comment.

how, judged in the light of a rational good, the isolated "virtues" of conventional esteem turn out to be "capacities of opposites", morally as apt to kill as to cure.

Is it teaching of this sort that Professor Dewey thinks so pernicious in its outcome? If so, we might, to begin with, invite him, as a good pragmatist, to give some little attention to the matter of what is the problematic situation in the light of which these distinctions are drawn. If the problem were merely one of finding the most effective means to a given end, or again of considering to what ends certain things may be adaptable as means, there would be some point in his strictures on the isolation of "material means", and the like. But the situation which these thinkers had in view is one in which there are three terms, not two. The intermediate term is human life, in regard to which two legitimate questions are asked: first—What are the things necessary to its preservation or maintenance?; and second—To what ends may it be devoted; what is its proper good? The same thing, life, is considered firstly as an end, and secondly as in turn a means. When we envisage the situation in this way, the classical distinctions are perfectly straightforward. "Material" things are means, as literally as you like; means to the preservation of life. But what the classical moralists wish to enforce upon our notice is that, when this question has been canvassed, reason requires us to ask further questions. Is life an end in itself, or has it in turn a purpose? Does it admit of direction to different purposes? Which of these (if any) is intrinsically good? Does Professor Dewey think that people should be discouraged from discussing questions of this latter type? Can he deny that the outcome of such discussions will have a most intimate bearing upon the practical organization of life?

But perhaps Professor Dewey, despite his repudiation of all possible distinction between "material" means and any other sort, is prepared to recognize the threefold nature of the problem, but simply wishes to recommend a certain mode of treatment of the whole situation which shall be, as it were, circular instead of linear. He may mean that the same things which, from an external point of view, appear as means to the mere preservation of life come, when we place ourselves at the internal standpoint of "the liver", to be in turn the ends, or the "proper" ends, or the only field for selection¹ of the "proper" ends, of the activities of life itself. Thus we should get an "evolutionary" view, of a type more familiar perhaps in classical philosophy than Professor Dewey permits us to see. Certainly American civilization has become, for good or for evil, identified in the mind of the public with the doctrine that if people will only devote themselves wholeheartedly to the

¹ Selection, of course, requires the introduction of a distinct ethical principle.

improvement of the apparatus of "commodious living", the question of achieving the *summum bonum* will automatically settle itself.

But if anything of this nature is to be accepted as the solution of the situation, we must still bear in mind that as a solution it presupposes that we have initially distinguished the two problems of the means of life and the ends of life. Nor does it appear likely that the practical contingencies which prompt this question will be so infrequent in future as to make it one to be ignored and forgotten in the intellectual education of the present or future generations.

In any case, does Professor Dewey really think that a solution of this type had never occurred to the classical moralists? Is not their doctrine in many cases an explicit rejection of this solution? We may disagree with their conclusion on this point, but does anybody believe that the problem is one that could have been avoided, or that time devoted to its rational decision is other than time well spent, equally from a scientific and from a humanitarian point of view?

Professor Dewey then accuses philosophers, at least by implication, of treating economics as on a lower level than morals or politics, and goes on to point out, nevertheless, that the scope for "ideal" attainment of actual human beings is "mainly determined by economic conditions". We may note in passing that this language about economic determination, though familiar enough, is strictly meaningless. If a process has economic conditions, then it is economically conditioned; there is no more or less about its economic "conditioning". Where the "more or less", the "mainly" or the "slightly" comes in is in connection with an entirely different point, namely, where particular economic conditions permit of a certain degree of achievement, whereas certain others forbid it. A has the money to pay his fare Home to hear the Gifford Lectures; B, who cannot raise it, must remain behind. But A's cultural opportunities in this matter are quite as completely "determined" by economic conditions as are B's; no more, no less. It is true that A has a choice in the matter that B has not; as we say, "It depends on himself" (whatever that means). But A's choice is economically "determined" in precisely the same sense as is B's lack of it. Professor Dewey appears to be identifying, with misleading results, the relation between a condition and that of which it is the condition with that between a force or effort and something which furthers or obstructs that effort. In this he may have been helped by the currency of a further sense of the word "condition"—that in which we speak of a person's "economic condition" meaning literally his actual wealth at a given time.

Thus, however concealed under Professor Dewey's terminology of "determination" and "conditions", a point of great importance to the argument emerges. When he says that people's cultural opportunities are "mainly determined by economic conditions", what he means is that most people are prevented by economic disabilities from exercising any choice as to whether or not they shall pursue certain goods. They have not, as Professor Dewey would say, "the means". But in emphasizing this (and it cannot be too much emphasized), is not Professor Dewey adopting the very distinction that he commenced by repudiating, the distinction, signalized by Aristotle, between mere living and living well? After all Professor Dewey's quarrels with those who contrast the "need" for making a living with the "aspiration" after better things, we find that his own language about economic "conditions", and still more about the "imperative" character of practical needs with the mass of mankind, implies an entire equivalence of outlook.

"We can hardly expect a moral system which ignores economic conditions to be other than remote and empty." And whose moral system is this? It is true that some of the classical moralists, working with their "methodological picture" of a distinction between the means to life and the ends of life (and, of course, a pragmatist will be the last to contend that the value or validity of our thinking is determined by an intrinsic "truth" of such pictures), arrived by its aid at a certain conclusion on this matter of economic conditions. Kant, for example, decided that the supreme (though, be it noted, not the complete) good was the good will, with at least the strong suggestion that a good will is attainable by any rational being irrespective of his "earthly" fortunes. But is a demonstration (however unconvincing we may find it) that poor men can be good to be stigmatized as a morality conceived in neglect of economic conditions? It is certain, as anyone may quickly assure himself by referring to the examples that Kant immediately provides, that he finds in economic relationships an obvious field for the exercise of the good will. If exception be taken to the limited scope of these examples, as being restricted to the realm of the merely contractual—commercial honesty and the like—with no word about great schemes of social reform, we still have not far to look for an answer. It is doubtful if there has been one more lasting source of inspiration to the socially revolutionary movements of the nineteenth and twentieth centuries than Kant's "remote" conception of the moral law as enjoining the treatment of humanity everywhere as an end, never as a mere means. Who are the people who find Kant's ethical

theories "remote", "empty", "academic", "intellectualistic"?¹ Precisely those whose whole practice is a denial of the capacity for moral responsibility to their poorer fellow-citizens, and whose schemes of "social work" involve the manipulation of human beings as mere units in systems of "social" hygiene, the purposes of which it is not necessary nor to be expected that they should personally entertain. To such reformers the words of Bosanquet, written thirty years ago, in the Preface to his "Philosophical Theory of the State", are as fully applicable now as they were then:

It seems worth while to observe that the attention which is now rightly paid to such disadvantages, affecting the poorer classes of citizens, as it may be possible to remedy, has given rise to a serious confusion. The zeal of the advocate has led him to slander his client. In proving that under such and such conditions it would be no wonder if "the poor" were bad, he forgets to observe that in fact they are generally just as good as other people. . . . Such terms as "den" and "slum" are too freely used, with an affectation of intimacy, for homes in which thousands of respectable citizens reside. Our democratic age will be remarkable to posterity for having dimmed the time-honoured belief in the virtues of the poor.

Professor Dewey may well be hailed by all the Women's Clubs as a prophet of Fordism, vocationalism and bureaucracy, but he may not find among the friends of democratic progress all the encouragement he perhaps expects.

Let us now, however, take the step in theory which Professor Dewey wishes us above all to take. Let us try to leave out the intermediate term, "life", to which "material" things are material, and to which "spiritual" things are ends. We are now inside life, just living, and "means" and "ends" are before us in a wholly simple and direct mutual relationship. We are now to witness the breakdown of the category of means and end into sheer relativity. What is the end? Immediately you start defining it you are, *ipso facto*, specifying the means. What are the means? They are defined by what you know of the end—its positive content submitted to the apparatus of thought. But all this is the merest commonplace of classical philosophy. So much the philosophers saw quite clearly, but they saw something else.

¹ Dr. T. C. Gray, Director of Mental Hospitals in New Zealand, in his Report on "Mental Deficiency and Its Treatment", on which the Act of 1928 was based, recommended, *inter alia*, that a unit of each clinic therein set up should be a "social service worker", whose duties were enormously important, but who must, of course, be kept in a position of due subordination and non-responsibility as compared with the medical staff. Knowledge was a desirable qualification in such a person, but Dr. Gray, commenting on what he had observed of the practice in other countries, reported on the training of aspirants for social service work in New York and elsewhere that "we should steadfastly avoid the false intellectualism which was being inculcated there, involving as it does the complete suppression of those very qualities which render women peculiarly suitable for this type of service" (p. 18). A consideration of the salary offered for such positions under the Act will show how effectively Dr. Gray has preserved us from the danger of any such contamination of the Public Service with "intellectualism".

When the rising young bureaucrats of Plato's Republic had mounted by the steps of the sciences to the vision of the cosmic good, *i.e.*, when they had come to see that things are a universe, in that they subserve a single purpose, were they allowed the term of their natural lives to contemplate the gorgeous spectacle? Not at all; they were straightway compelled to come down and enter upon the drudgery of public administration. In so doing, they would institute various conventional standards of conduct for enforcement upon their political inferiors, which to these latter would represent the good in life. These laws or institutional codes would not be deduced by their authors by any explicit process of ratiocination from a prior positive knowledge of the nature of the good. On the other hand, as the modes of conduct that naturally occurred to those who had apprehended that there is an absolute good, as the distillation of the subsequent practical experience of those who had once seen that vision, these institutions would possess an authority to which no alternative scheme could lay claim.

With the excision of the bureaucracy and a large infusion of democracy, the fundamental plan of the ethics of T. H. Green is the same. What is the good? The answer is that we, progressively, find out *what* the good is by *acting* on the assumption *that* it is. In this conception absolute and relative morality are harmoniously combined. On the one hand, our moral standards at any time are the precipitate of the actual conduct of men who were conscientious, *i.e.*, who tried to think out their actions on the basis that, as distinct from mere conventions, there is an absolute standard of conduct to be discovered. These standards as they come to us now are conventional, in the sense that we have not deduced them *a priori* from any knowledge of the good itself. Such principles must inevitably have been accepted as the basis of our moral education. And they *are* absolutely valid against modes of conduct arising out of any less thorough and persistent attempt to find an objective standard of conduct. But now, on the other hand, they have no moral authority in the face of any equally conscientious attempt to deal with present circumstances, it being understood that such a conscientious consideration must include a genuine appreciation of all that went to the formulation of the original decision on which the current rule is based. Out of this effort there will then emerge an institution, or mode of action, which will form a further conventional standard, and so on. It will be seen that throughout this process there is as little in the way of syllogistic deduction, and as much in the way of "solution through action", as the most ardent pragmatist could desire.

The moral for our present argument is that the duality of the necessary and the desirable is an inexpugnable element in human experience. Relative to time and circumstance in its particular content, it is formally permanent and absolute. For the due ordering of our thought and conduct it must at any time be possible to point to some object whose interest for us is defined by the fact that we can say of it—This in its mere being I must make secure ere I can proceed to enjoy its perfections. The authority of such an object can no doubt be dissolved by appropriate criticism, but some there must be assumed at any time if we are to get on, even with our criticism. It is surprising that a writer like Professor Dewey, who has insisted so much on the place of habit in our life, should make such little allowance for its moral value and function in the very founding of reason.

But the aspect of relativity must not be overlooked. Let us take again the case of life, the intermediate between "economic" means and "ideal" ends (though, as we have seen, all ends, however "practical" or "immediate", have the same characteristic of ideality for reason). Now this life itself which forms the middle term is not a rigid concept. We may have narrower or wider ideas of the kind of life that is to be preserved. With man the question never arises of mere survival, but—survival on what terms? Evidently, then, the economic needs of life will vary with the prevailing standard of life. Life is an institutional, not a merely physical, entity. But obviously, again, our conception of what life is, and of what its preservation entails, will be determined by our conception of what should be made of it.

One great storm-centre in this question of the duality of the necessary and the desirable is the field of politics. Here the same principles hold. There will always be "necessities of State" taking precedence of particular projects of reform, and the like. At the same time the question is always relevant—what kind of State are you trying to defend in your appeals for "Law and Order"? The obligation remains to make as sure as we can that our State is one whose preservation makes for the rule of liberty and justice in the world. There are those who make a practice of stigmatizing by such names as "Prussianism", "Machiavellianism", or "Imperialism", the position of the modern classical political philosophy on this matter. They have in view such contentions as that of Bosanquet in his "Philosophical Theory of the State" and elsewhere, where he tries to show the moral impossibility of attempts by agents of State to enforce in public administration the same moral code which they acknowledge as binding upon themselves in their private capacity. But if the critics would take the trouble to attend carefully to the type of case that

Bosanquet uses to illustrate his argument, they would find that it is characteristically in deference to the requirements of the weaker party—"subject peoples" and the like—that such "concessions" are recommended as morally necessary. (See the work cited, Chapter XI, especially Section 7.) The tragic upshot of the administration of the mandate for Western Samoa by New Zealand is a "speaking" reminder of the consequences of failure to take account of such "necessities of State" in the attempt to impose a uniform social code in the name of progress.

It is possible that Professor Dewey does not intend anything substantially different from what I have been urging. I think, nevertheless, that his manner of stating his case is much less than just to the great philosophers, and that he raises expectations of novelty in his results which cannot possibly be satisfied.

EMERGENT EVOLUTION.¹

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IN discussing the problems of mental evolution, we must remember that it is characteristic of modern thought that there is a large number of people for whom these problems do not exist.

In the present paper, I wish merely to say a word about those who do accept the reality of the mind's existence, and offer an explanation of its evolution.

But before proceeding directly to a discussion of Emergent Evolution, which represents an entirely new departure on the part of certain modern biologists, I propose, for purposes of contrast and comparison, to give a brief critical sketch of a typical orthodox theory of mental evolution, in which the concept of Emergence finds no place. For this purpose I have chosen Professor MacDougall's theory as presenting us with such a typical evolutionary scheme.

Now a theory that proposes to give the rationale of the evolution of the mind of man must do two things:

- (a) It must offer a suitable theory of mind.
- (b) It must give an appropriate account of its development.

Professor MacDougall professes to offer a monistic explanation of things, and conceives of mental activity as something we cannot hope to explain in terms of anything else, but neither does he attempt to reduce matter to terms of mind, apparently regarding the two as irreducibles.

What precisely does MacDougall mean by mind? The fundamental mental activity is he assures us "essentially the function of guiding present action in relation to the course of events anticipated in the light of past experience", or, again, "cognition or awareness of some object prompting to striving in relation to it".

The fundamental mental activity, then, is essentially utilitarian, and what is more all other activities of mind are derived from it, since "mental powers such as those manifested in man are due to differentiation and specialization of those displayed at lower levels". There is thus never the genuinely new in mental evolution; what appears so is simply "specialization and differentiation" of the old

¹ Read at the Annual Congress of the Australasian Association of Psychology and Philosophy, Wellington, May 12, 1930.

original purposive mental activity. Of this single drab-coloured thread does MacDougall endeavour to weave the colourful and splendidly embroidered tapestries of mental evolution.

An alluringly facile explanation indeed, but whence arises the simplicity? Is it the simplicity of brilliant inspiration or merely that other more familiar mundane simplicity which consists rather in the gentle art of making a little go a long way?

In forging the first link of the mental chain MacDougall shows us a picture of a mind possessing instincts that "go off" at the appropriate stimuli. But as life advances, the instinctive reactions become more subtle and refined. MacDougall tells us: "Intelligence is the power of adaption of instinctive reactions to varying circumstances." On the one hand, he tells us that instinct and intelligence are not two distinct types of mental function, then he suddenly pictures intelligence to us as a kind of intricate co-ordinating mechanism, something that marshals the instincts into their correct places and prevents them back-firing.

In addition to this, MacDougall has now introduced an entirely new factor into evolution, that is, a unifying and co-ordinating activity. For "awareness of an object and striving in relation to it" is one thing, but the correlation and unification of different individual strivings so that they act in harmonious relation is quite another.

The mere addition of a number of states does not automatically generate their co-operation, there is a difference between a sum and unity. MacDougall might retort that in any process of adaptation there is always awareness of striving, but this comes only as a condition of the unifying process: an animal can carry out its purpose only when its mental states have been unified. Moreover, to unify and co-ordinate mental (instinctive) states surely involves knowledge of their content, and how this is a function of the co-ordinating activity is a question that MacDougall has not even attempted to explain. It should be emphasized that for MacDougall intelligence is a closed system bound irrevocably to the instincts: it is merely the hand at the trigger and has no existence apart from the firing of shots.

Let us now consider another type of activity, that of moral behaviour.

The moral nature of man, his "ethical sense", constitutes a problem that from the dawn of philosophy has given rise to weighty philosophic issues and far-reaching speculations.

But for MacDougall the problem scarcely exists; he dismisses it with a wave of the hand and explains it by explaining it away.

Moral beings are comparatively late comers in evolution. We may regard the higher animals as intelligent, but we do not generally regard them as moral. As regards the mind of civilized man and that of the higher animals, MacDougall declares:

- (1) There is little innate difference between the two types of mind.
- (2) The moral impulses of man are due to an "integration of activities already found in the higher animals".

Once more the conception of integration provides the saving clause in the situation. The co-ordinating power previously bestowed on intellect is now granted to morality. Morality bears the same relation to these activities as the intellect did to the instincts, it arranges them in different patterns and marshals them in different battalions.

But it must be admitted that MacDougall's haven of refuge is not without its disadvantages. For instance, does "moral" integration displace intellectual integration? MacDougall is decidedly vague as to what becomes of the latter when the former appears on the scene. Perhaps, like the lion and the lamb, they lie down together. MacDougall is forced into this somewhat trying position by his *dictum* that the apparently new in mental evolution is simply differentiation and specialization of the old. He can then account for new phases of mental activity only by surreptitiously inserting into the evolutionary process comprehensive co-ordinating activities "with power to act". Having, however, invoked the aid (even though surreptitiously) of his integrating activity, MacDougall is by no means at the end of his troubles, what he gains on the swings he loses on the roundabouts. He must now fit the co-ordinating principle into his scheme of things.

MacDougall tells us that particular types of mental activity are bound up with special parts of the brain. He further speaks of the power of adaptation of instinctive reactions. Now, with what particular part of the brain is this particular mental activity bound up? Different instincts are bound up with special parts of the brain. Does the integrating activity locate itself with one particular instinct? In that case the burden is upon MacDougall to show why this one should be favoured above its fellows. Or, does the integrating faculty disintegrate and distribute itself among all the different instincts? This would appear to constitute overcrowding.

We cannot but be reminded of Aristotle's criticism made of somewhat similar views so many years ago: "Now some say that the soul is divisible, that one part of it thinks, another desires. What is it, then, that holds the soul together if naturally divisible? If, then, unity of soul is due to some

other thing, that other thing would be, properly speaking, the soul. The same argument applies to it (the soul) and can be carried to infinity."

We now come to a consideration of MacDougall's final point, the agent at work in evolution. If Lamarkism were true, he is of the opinion that it is simply the purposive strivings that are transmitted. But as Lamarkism is out of favour just now, our philosopher falls back upon that biological refuge in time of trouble, the germ plasm, in the shadow of whose all-embracing complexity so many worried eugenists and distracted materialists have found rest and peace. Our philosopher thinks that perhaps the germ plasm has sufficient mental activity to produce variation. It can only be pointed out that to credit the germ plasm with so much acumen and foresight is not in any sense a solution of the problem: it only throws it further back. Moreover, it is scarcely consistent with his view of the development of mental life, according to which the germ plasm should have about the same mental activity as an amoeba. Without desiring to detract in any way from the intellectual accomplishments of this worthy little creature, one cannot but question their adequacy when regarded as the main directing agents in the "grand strategy of evolution".

And so we have the human being the supreme product of evolution as MacDougall's philosophy shows him forth. A thing fearfully and wonderfully made, blindly plunging its way to and fro within the iron boundaries of its mechanical universe. Impelled hither and thither by a series of instinctive disconnected jerks amidst a reality that must remain eternally hidden from its understanding. Contemplating MacDougall's elaborately constituted Robot, we may marvel at the ingenuity of its structure, or mourn the grotesque futility of its movements. But we can never mistake it for a man.

Another attempt to solve the great and manifold problems of mental evolution is found in the doctrine of Emergent Evolution. Several modern thinkers have propounded doctrines of Emergence, but as Lloyd Morgan is probably to be regarded as the leader of this school, it is Emergent Evolution according to Lloyd Morgan that I shall now discuss.

There are certain difficulties involved in the appreciation of this theory, because it attempts, on the one hand, to give a purely naturalistic account of Evolution, and, on the other hand, to interpret Evolution in terms of Spinozist Idealism. It then appears an attempt to harmonize two entirely different points of view. But as Lloyd Morgan's philosophy concludes with a richer content than that with which it started, the more profound and noble of his conceptions may perhaps be

used as corrections to those parts of his system which seem to some of us artificial and unsatisfying. A brief account of his world view will now be given.

First of all, as a good Spinozist, Lloyd Morgan is a thorough-going monist. He says: "Hence there are not two worlds, a physical world and a psychical world, but one world psychophysical from top to bottom." Further: "There is at no level interaction between the physical and the psychical, there is one determinate evolutionary advance throughout."

In what, then, does evolution consist? Simply in the establishment of new systems of relations. What we get in evolution that is genuinely new is simply "a new kind of relatedness". For instance, atoms are emergent from electrons, and molecules emergent from atoms, because their parts show a different kind of relatedness. Lloyd Morgan declares: "Our contention is that in vital events there is a new kind of relatedness that does not obtain at the lower level of physico-chemical events, and in mental events that does not obtain in vital affairs as such."

But what, then, is the ultimate meaning of Evolution? What may be said to be its cause? In considering this we must remember that Lloyd Morgan distinguishes sharply between natural causation and Causality. "Causality is the universal operation of Spirit manifested everywhere and everywhen, of which the whole course of evolution affords divers manifestations."

There are then four distinct lines of thought running through this highly interesting theory that may well give rise to discussion:

- (1) Lloyd Morgan's pan-psychism.
- (2) His psycho-physical parallelism or unrestricted concomitance.
- (3) His doctrine of Emergence.
- (4) His concept of Substance as the operation of Universal Spirit "timeless and Omnipotent", manifest everywhere and everywhen.

First of all let us consider pan-psychism. Now pan-psychism is a doctrine that may have two entirely different interpretations. The first type of pan-psychism is at least as old as Plato, and has been made familiar to students of English literature through the writings of Wordsworth, for example, when he speaks of being inspired by

"a sense sublime

Of Something far more deeply interfused,
Whose dwelling is the place of setting suns."

But here he is describing a personal experience, something that, as Lloyd Morgan might say, just happened to him. But

the essence of the experience lies in the belief that, for the time being, he found himself at one with an Underlying Unity. This train of thought is most certainly also to be found in Lloyd Morgan, and I shall consider it in due course. But pan-psychism is also used by Lloyd Morgan in an entirely different sense, since he postulates psychical correlates to particles—atoms of matter as they exist for the physicist. Electrons, atoms, molecules all have their psychical correlates. The atom, for instance, exists as a physical being, but it also possesses what Lloyd Morgan calls "enjoyment" and exists also as a psychical being. This, then, is one way in which he interprets the Spinozist belief that thought and extension are attributes of universal Substance or God. But the atom and its psychic correlate, it must never be forgotten, form but one single existence, a single finite mode manifesting the attributes of extension and thought.

Now it follows from these presuppositions, that as an organism advances in physical complexity it also gains in psychical complexity: the one is not the result of the other but its correlate. Lloyd Morgan then preaches the duality but not the dualism of mind and body. Personally, I find this concept of a duality that does not attain to dualism a little hard to follow. I seek in vain for the common term between the extended body and its psychical correlate or correlates.

But as a matter of fact, to the great enrichment of his system, Lloyd Morgan does not keep in complete strictness to his doctrine of absolute concomitance, and in this very inconsistency we find the key to what is most profound and far-reaching in his system. I think the inconsistency is brought out best if we consider Lloyd Morgan's view of the human mind and the human body. Like Spinoza, he holds that mind is "the idea of the body". Lloyd Morgan paraphrases this: "The object (that is a certain mode of extension) which is the physical concomitant of the enjoyment which constitutes the human mind is the living body."

But, for Lloyd Morgan a mind is not only a self of activity, but also a self of contemplation. We can stand apart from ourselves and contemplate ourselves; in other words, we are self-conscious. But in his concept of a self of contemplation, Morgan enriches the content of the psychic correlate as does his master Spinoza in his concept of a self that knows, and also that knows that it knows that it knows. But a self that possesses a capacity for self-contemplation is obviously something more than a mere psychic correlate of a particular mode of extension. We are then entitled to ask Lloyd Morgan: "What are the physical correlates of that system of relatedness that contemplates all other systems of relatedness including

itself?" The very notion of a self of contemplation involves the existence of an activity that can have no counterpart in the physical world. Atoms and molecules have relations between themselves, but they cannot stand apart from themselves, and contemplate those relations, so that the unrestricted concomitance, the equality between the physical and psychical correlates, is shown to be illusory. The psychical correlate is psychical correlate and something else as well. Professor Caird's comments on Spinoza are very much to the point in this connection: "What is most important to remark is that, notwithstanding Spinoza's assertion of the absolute independence and equality of the two parallel series of modes, a richer content is here ascribed to the mental than to the corporal side. The idea of the body corresponds to the body, but there is nothing in the latter that corresponds to the idea's consciousness of itself. . . . In returning upon itself, mind is not the correlate in thought of anything that takes place in extension. It possesses a self-activity, a power of self-reflection, which has no existence in matter. In his whole doctrine, indeed, as to the relation of the ideal and the material we find an unconscious preponderance ascribed to the ideal side". ("Spinoza", p. 202.)

This criticism is a philosophical objection that can be brought against the doctrine of concomitance, but there is also a very real scientific objection. Do atoms, molecules, and electrons, as a matter of sober scientific fact, possess psychical correlates? The difference between organisms and crystals or machines was a point that I discussed at some length in a previous paper, and I do not propose to recapitulate the arguments here. But it is quite easy to see why Lloyd Morgan feels compelled to posit this psychical correlation, and in the positing of it, we see the naturalistic, one might say mechanistic, strand of thought in Lloyd Morgan's philosophy coming to the fore. By hypothesis, Lloyd Morgan cannot evolve mind out of matter, and also by hypothesis, he must find mind wherever he finds matter, he must build up mind, so to say, from its earlier and simpler units, must construct mind from simpler units just as the chemists build up molecules from atoms.

We see here the balance tipping over to the side of materialism, since Lloyd Morgan takes the physical world of atoms, molecules, and physical bodies as once and for all given, as is revealed to us by our sciences. Hence, owing to his doctrine of unrestricted concomitance, he is compelled to take the material world as standard, and force the psychical into the iron frame of the physical. Hence we have the conception of mind as built up of structural units, which

scarcely escape from being mechanical simply because they are immaterial.

I am, as will have been gathered, by no means a follower of Dr. MacDougall, but I do think his comments on Lloyd Morgan's atomic and electronic psychical correlates and their combinations very much to the point. He declares: "To speak of consciousness where nothing is known, where there is no awareness . . ., of some object, however vaguely and inadequately conceived, is self-contradictory. Lloyd Morgan and other philosophers attempt to generate consciousness or awareness of an object ('projicient reference' is Lloyd Morgan's expression) by supposing that it may arise through the compounding of sensations which uncompounded have no rudiment of such function. This attempt is of very doubtful validity."

Summing up, then, we might say that Lloyd Morgan's pan-psychism in its literal application follows as a logical consequence from his doctrine of unrestricted concomitance and gives rise to the structural or mechanistic side of his teaching. But we have also seen that the doctrine of unrestricted concomitance was itself inconsistent with other more fundamental conceptions of his system.

Let us now consider the doctrine of Emergence, which is really the central conception of his teaching. We have seen that what we have in evolution that is genuinely new is "a new system of relatedness". If we would do justice to Lloyd Morgan's teaching, we must remember that Emergence implies something which is not resultant development but is rather in the nature of manifestation.

We might open the discussion with a consideration of the doctrine of emergence as applied to mind. It might be argued, if the whole world is as Lloyd Morgan believes "psycho-physical from top to bottom", what right have we then to talk about the emergence of mind at all? In one sense we have none. As Lloyd Morgan himself says, he uses "the word mind in its wider sense as Spinoza used thought to designate attribute of nature. In that sense one does not speak of mind as emergent, one speaks of emergence in mind, that is the application of the concept of emergence to natural events in their mental aspect considered under duality of nature". This distinction between emergence of mind and emergence in mind is a cardinal one for Lloyd Morgan, and we must never let it slip if we would do full justice to his theory. It is the more necessary to bear the distinction in mind because Lloyd Morgan himself appears to hover between two entirely different uses of the word emergent. At one time emergence means merely "a new kind of relatedness, the sum total of all

relations existing between mental events"—"the relational tie", in fact. Then at other times emergence is spoken of, at any rate in regard to mental evolution, as the emergence in mind of a new activity, whereby it is able to participate in a new order, an objective world beyond itself. Emergence really means participation and self-realization, as we shall see when we come to consider the culminating point of Lloyd Morgan's teaching.

But for the moment I wish to pause to point out how emergence in mind is something entirely and fundamentally different from the more orthodox views of evolutionary naturalists as exemplified, for instance, by the teaching of such men as MacDougall, whom we considered a few minutes ago. We saw how, according to MacDougall, man's mental life continues founded on instincts little different from those of the higher mammals, and that morality consisted in integration. Man's moral existence manifests nothing essentially new. Indeed, MacDougall may scarcely be said even to state the problem of moral values at all. He certainly does not solve it. Consider the concept of integration. It is very difficult to see how the idea of good or bad can have anything to do with integration. If by integration we mean "working harmoniously" together for a given end, it often happens that the bad man may be better integrated than the good. As a selfish being ruled only by his own desires, he may pursue the even tenor of his way untroubled and at ease; but once he becomes conscious of moral promptings, he ceases to be harmoniously integrated, and becomes torn with inward struggles. Surely the very essence of moral character is the effort to regulate our lives in regard to some standard. Anything in the way of integration, whatever that really means, is simply one of the means to an end, not an end in itself. But it is just precisely the existence of this standard that requires explanation. Even if it is argued that the instincts themselves must be regarded as good or bad, the problem is no further advanced. We could only distinguish a good instinct from a bad one by an appeal to some moral standard. But it is precisely this moral standard that requires explanation. And even if we conceive of the moral struggle as simply a struggle for existence between conflicting desires, the main problem still remains, for such desires differ fundamentally. Says Professor Adams: "Does not the difference between these two types of desire lie just in this, that in one case the valued object is only or chiefly a projection of the felt desire, whereas in the other case the desire is aroused by a belief in the objective value of the desired object?"

I have dwelt at some length on this treatment of the problem of values by MacDougall and the evolutionary

naturalists, because Lloyd Morgan's treatment of the same problem is so entirely different. Values do not evolve, they emerge, or rather they are emergent in mind. Values are not something projected on to the outside world by the mind: they are rather a part of the eternal nature of things in which the mind participates. "We do not make moral values", says Lloyd Morgan, "we are made by them." In regard to these values and their objective existence Lloyd Morgan makes his meaning quite clear. Speaking of love, he says: "Its distinctive reference is, I think, to the worth of a person for what he is, on the understanding that no person is worthless, though there are of course grades of worth." Human Love, then, is not something developed out of, but something added to, the experiences of lower levels. Says Lloyd Morgan: "Human love and goodwill no doubt involve the mutual aid which seems to carry pleasure far down in the animal world. But if there be any validity in the concept of Emergence, this is not yet love. The mental attitude of the human mother to her husband and child is on a different level of emergent evolution from that of a lioness to her cubs or to their father."

I will now pass on to a consideration of Lloyd Morgan's view of Divine Purpose, of that Universal Substance of which the whole course of evolution furnishes divers manifestations.

Let us go back for a moment to emergence in mind. First we have projicient reference, that is, reference on the part of the mind to a world of external objects; then we have cognitive reference; then reflective reference, that is, reasoned thought. Then we have the emergence of values, moral, æsthetic, economic and social. Last of all there emerges in mind the concept and knowledge of Spirit as Universal Substance. Says Lloyd Morgan: "My thoroughgoing naturalism takes form in the concept of evolution as emergent and universally applicable throughout nature, including human nature bodily and mental. But", he continues, "I am one of those who hold that life and mind should not be identified with, but should be distinguished from Spirit. I regard life and mind as manifestations of Spirit, in an ascending hierarchy of such manifestations." He continues: "This brings them within the orbit of natural events, to be interpreted subject to the methods of naturalism. In accordance with this view, Spirit is not a 'quality' at the summit of the evolutionary hierarchy, it is that of which all qualities from the highest to the lowest are manifestations under the conditions of 'time and space'."

How, then, do we come to have knowledge of this Spirit, this underlying Reality? We know it by living It, as It reveals Itself within us, and the conditions whereby we are enabled to become one with it are emergent within us. The

knowledge of Spirit is the supreme level of emergence, because beyond it there can be nothing higher, since by the very attaining of it we make ourselves one with that movement of which all evolution is but the manifestation and expression. Moreover, in realizing that movement, we become the means by which the Activity flows back into Itself, enriched by the measure of our self-realization. We shall very seriously misunderstand Lloyd Morgan if we do not realize that Spirit or Activity is not an abstraction that we deduce from the natural order, it is something that we actually know in living experience. It will be seen then, that knowledge of God (which we must not confuse with a mere belief in God, but knowledge of God as lived experience) is something that we attain as persons.

Like Spinoza, we note that Lloyd Morgan starts off with the conception of mind as the idea of the body, the equivalent expression in terms of thought of what is manifested in the physical world in terms of extension. But at the conclusion of his system, mind is not only the idea of the body, it is also the idea of God, and all existence through Him. How, then, can the mere individual collection of physical correlates attain to the idea of God? We have seen that through emergence the developing mind participates in more and more extensive objective worlds. In the world of values and the world of objects we cease to be mere individuals, but become persons. "A person", says Lloyd Morgan, "embodies what is general in particular circumstances. The universal significance of his personality shines through his unique individuality. But", he continues, "if we regard the whole evolutionary process as a manifestation of Divine Purpose, it is in us as persons that the Divine Personality is revealed. Through expansion of thought in Spiritual regard, we reach out toward, although we are unable to grasp, the limiting concept of personality. If we be persons, and more than individual selves, it is in religious regard and through the all-embracing Personality of God."

As persons, then, participating in a world of objective values, there is emergent within us the experience of that Unity in which all other unities have their being. "Truth, beauty and goodness", he says, "are possessed by each individual self of enjoyment as the centre from which reference goes forth. But when they are not thus possessed in some temporal sequence of mental process—mine, yours, or another's—do they surcease and drop out of being? Perhaps so. But may they not be temporal manifestations of values *which in spiritual regard are Eternal?* I believe they are so."

And so as persons we participate in the Universal Activity. "But", he says, "the self that one *is*, in its individual

uniqueness and in its representative personality is the self of enjoyment. Here and here only we realize self in the current nature of its being. . . . We must ask ourselves 'How is the Being of God realized in the passing "here" and "now" of current experience?' To the question, must not each of us reply: It is (or is not) realized in my self of enjoyment, there and at first hand, nowhere else? Primarily, the Kingdom of God is within us, not as something other than what one is as mortal man, not as restricted to the individual, but as constitutive of what some persons are as passing manifestations of life and mind, through the presence within them of the Eternal and Omnipotent Spirit."

We see, then, that in the last resort, Lloyd Morgan's pan-psychism concludes as something other than that which it began. It no longer consists of a conception of a multiplicity of psychic correlates, existing, so to say, atomically alongside of a multiplicity of infinitely divided particles. But pan-psychism now involves the "Wisdom and Spirit of the Universe", the "Soul" that is "the Eternity of thought" and "gives to forms and images a breath and everlasting motion". It becomes "The motion and the Spirit that impels all thinking things, all objects of all thoughts, and rolls through all things".

Is this conception incompatible with his earlier doctrine, of physical correlation, and unrestricted concomitance? I think it is. We have seen that his doctrine of Universal Spirit involves a lived experience that is ultimately a self-realization. The self-realization involves, as we have seen, a returning back upon Itself of Spirit: the God in man realizes Itself. Lloyd Morgan might very well have used Spinoza's own noble words in description of this experience, "God loves Himself with an infinite intellectual love", "God in so far as he loves Himself loves man", and again, "The intellectual love of the mind to God is part of the Infinite Love wherewith God loves Himself". But in this concept of a spiritual Activity ever going out from Itself, ever flowing back enriched, Lloyd Morgan has gone very far indeed from the concept of a Universal Substance possessing as equal attributes thought and extension. What he now thinks of, is not so much an Activity that has thought for attribute, but an Activity that in the deepest sense of the word is thought. Man and God do not communicate with each other because of a common attribute, but they live in each other by virtue of a common being. This view would appear to conceive of God as possessing attributes rather by virtue of that self-conscious thought that is the cause and creator of all distinction. In terms of this more profound concept it would be more correct to say that God possessed Extension, not as an attribute

equal with thought, but possessed extension rather as object of the infinite thought or intelligence that constitutes His essence. I think some such view as this is implicitly held by Lloyd Morgan. Indeed, as we have seen, the whole trend of his system is to enrich thought in a way in which he cannot and does not enrich extension. The very terminology he uses shows this clearly. He speaks constantly of "higher levels of emergence". But higher than what? How can we speak of moral values as possessing a "higher level" of emergence unless we hold that those very values carry with them their own implicit standard. Only if we hold that those values have objective worth can we speak of them as being in fact higher or lower.

And let us note also, that these very emergents that Lloyd Morgan speaks of as representing the highest level are those very values man possesses by virtue of his participation in an objective order of Reality. When he speaks of man as person as representing a higher Emergent level than man as individual, he is taking a view of self whereby it grows quick with Spiritual life, since he teaches that it is in this very selfhood that the being of God is most completely lived in man. He unquestionably believes that the whole meaning and purpose of Evolution culminates in the enrichment of the human mind through the "intellectual love of God", which, as we have seen, is a self-realization of both God and man. There can be no mistaking his meaning when he says: "None the less as a matter of emphasis on what seems to me to be central, I venture to express my belief, that the knowledge begot through reference, and the conduct which is the outcome of endeavour, are enlisted in the service of joy and love to the end of developing within the person a self of enjoyment, with communal status increasing in richness of substantial worth."

I hope that I have done no injustice to Lloyd Morgan's system in criticizing it thus. But the fact that certain of his root conceptions can be shown to be unsatisfying and, what is more, inconsistent with his theory as a whole, does not seem to me to detract in any way from the value of his more positive contributions to the thought of our time. And the thing that makes Lloyd Morgan's philosophy peculiarly interesting is that in him we have an evolutionary biologist, who at least realizes that there are problems to be solved. With him the different stages of evolution, more particularly the stages of man's mental evolution, or history, are not something simply to be dismissed with an airy wave of the hand or explained away, they are most urgent and pressing problems, that demand at least an earnest attempt at solution before the evolutionary story can have coherence at all. Because we have first

instinctive behaviour, and later moral behaviour, Lloyd Morgan does not immediately jump to the conclusion that explanation lies in reducing the one to the terms of the other. He does not make the mistake that so many evolutionary biologists make, of thinking that because two processes have something in common therefore they are equal in all respects. He realizes throughout that, be the explanation what it may, there *is* a problem of moral value, there *is* a problem of knowledge, there *is* a problem of religious experience. He realizes very clearly that an evolutionary philosophy that does not make an honest attempt to interpret all phases of human experience is not only very bad philosophy, but it is also extremely bad science.

It is also profoundly interesting to note that for all his parallelism, and atomic psychic correlates, Lloyd Morgan finds his ultimate explanation of things in terms of self-realization and the living activity of experience. And if his scheme of things with its fine sweep, and its inspiring contact with living reality, does not satisfy us, we should attempt to substitute for it something more profound and far-reaching, since it would be a retrogression to be satisfied with anything more limited.

And herein Lloyd Morgan fulfils what is surely the noblest function of the philosopher. He presents us with a profounder explanation of our own universe, and at the same time calls upon us to test it in terms of our deepest experience. Thus he not only presents us with an explanation, but at the same time offers us a challenge.

PHYSICAL SCIENCE AND PRIMARY EXPERIENCE.¹

By JOHN C. BEGG, F.R.A.S.,
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IF a missile, say this book, were suddenly flung at the window pane, the vivid perception of breaking glass common to all present, as contrasted with the train of superadded ideas and impulses varying in each one of us, would typify the common domain of physical Nature lying over against the fuller world of primary individual experience. Confusion in respect to the boundaries of these two realms is, I think, a competitor with the canonization of language for prime position as the root of futile excursions in philosophy.

For the reckless experiment suggested, however, the last book I should use would be the one I hold in my hand, "The Nature of the Physical World", by Professor A. S. Eddington, of Cambridge, in which the character and interaction of the two spheres are discussed with such acuteness and charm.

In the dawning philosophy of the ancients, the problem of the "public" and "private" worlds did not exist; the universe for contemplation was simply "there". The concept "there" became, in time, too vague for nascent science, and the metrics of Descartes, combined with his dualism, opened the way for advance to the modern mathematical conception of the four-dimensional extensive continuum Nature, from which all lingering psychic elements, such as colour, force, etc., have been gradually banished. Thus the physical concept would seem to have achieved its ultimate logical purity. Not many philosophers would expect, like the old materialists, to find in this purified physical scheme the foundation of all things; but it may be profitable to inquire how far the converse expectation, still implicit in much current thought, of finding a physical base, correlate with each feature of our direct personal experience, is based on reason, and how far it is due to a widespread failure to distinguish the field of Nature, as a common domain of conceptual thought, from the direct primary impacts which attend and constitute the stream of conscious life. I propose to illustrate this point by a brief examination of three topics prominent in Eddington's book: (1) What I may call modern Rip Van Winkleism, (2) "Time's arrow", and (3) the partial indeterminism of Nature.

¹ A paper delivered (in substance) on May 13, 1930, in Wellington, at the Congress of the Australasian Association of Psychology and Philosophy.

(1) *Modern Rip Van Winkleism*.—A law of relativity physics prescribes that the rate of a clock in motion is slower as reckoned from the point of view of a stationary clock. Therefore a man, says Eddington, by adventuring into space at enormous velocity (beyond present human ingenuity), could in a few hours, as shown by his own watch, live for a period which would transform his youthful contemporaries of earth into old men. All his physical processes, and presumably the lapse of his conscious time, would stagnate (in the terrestrial view) in sympathy with his watch; so, actually, he would be projecting his life into a new epoch. Travel to the distant stars, hitherto ruled out on the single ground that the utmost velocity would not enable a man to complete the journey in a lifetime, would, at least in respect to this restriction, again become possible, because the super-traveller would not necessarily, by his own time, spend in transit a sufficient period to become aged, or even cold and hungry.

For the purposes of this argument, I am accepting the high authority of Eddington on the physical truth of this doctrine. Difficulties which he himself suggests are not cleared up altogether in my mind by his footnote on page 27 in "Space, Time, and Gravitation". In any case the broad principle stands. The point to note is that in the bizarre situation suggested the stationary man assigns the super-traveller a span of life different from his own, and *vice versa*. Also, any given period of life which might normally coincide, say their fiftieth birthday, would not be regarded by either as simultaneous. There is, in fact, no general cosmic time, but only relative time. As regards my main inquiry, the relevant feature is that by physical laws we assess, not merely physical events, but the contemporaneousness of other minds and personal histories.

Now, while we need not be overmuch concerned about the convenient method of setting or reading clocks, there is an intense differentiation between our attitude towards what we believe, for example, to be *present* suffering and suffering in remote ages. It would be difficult to believe that a sigh of relief, elicited when an untoward experience of a friend is, as we say, over and done with, has no sort of justification other than that founded upon our peculiar point of view. We may, of course, be utterly deceived in imagining that there is such a thing as a veritable contemporaneousness of minds, because the rational foundation of the idea seems lacking. But, taking the almost irresistible intuitive view of its reality, it must find its basis, not in physical expression, which can yield us only the relative and variable, but in a detached realm of personality and non-metric experience. Be it noted, however, that the dilemma would never occur for a single mind, in which

simultaneity of experience is absolute. It occurs only when we attempt, necessarily, but not rationally, to yoke separate minds with the flux of a single physical Nature in which all our bodies are inextricably involved.

The problem is not solely a Relativity one; it would occur in any scheme of physics. If, with superb telescopic vision, we could see in the so-called spiral nebula of Andromeda a world peopled as with intimate neighbours, we should, if accepting the classical theory of the finite velocity of light, be compelled to believe that the scene was merely a mimic reproduction of what happened nearly a million years ago. It is now fairly widely admitted that the laws of Nature can be construed in many diverse ways, the dominant system being merely the simplest for our intelligence. Hence, just as the geocentric planetary system of Ptolemy could be upheld against the Copernican innovation if simplicity were of no account, so a scheme of physics postulating an infinite velocity of light is discarded only because of the hopeless complexity involved. In such a system, however, the Andromedans would be our true contemporaries. Could we judge such a vital matter indifferently according to our predilection for a certain optional physical theory?

"Time's Arrow."—This term is used by Eddington in connection with a certain character which he wishes to impose upon four-dimensional Nature. My comments are directed, not against the attendant circumstances leading to this imposition, but to mark the implied departure from the strict physical scheme in the purity which it seemed to have attained.

Until recent times science worked with a three-dimensional Nature, which, by its adventuring in time, exhibited a certain dynamical character lacking in Minkowski's four-dimensional extensive continuum now made famous in the physics of Einstein, wherein "the formality of *taking place*" seems to be ignored. A frequently used illustration of this four-dimensional world, in which time ceases to be a detached, somewhat nebulous entity, and becomes a definite dimension, is taken from the cinema film. If the progressive pictures on the reel were separated, and superimposed in order, a block would be formed in which time would be represented in the thickness of the block. The unavoidable suppression of the third dimension on the single film leaves the way clear for its inclusion as temporal expression. We cannot illustrate with a perfect counterpart, because we always require a spare dimension in which to move round a model. If our make-up consisted of two dimensions only, we could deal with lines, but not with areas, to scan which a third dimension would be necessary. Similarly, we can use three-dimensional models because the fourth (time) is free. Two facts—(1) that our extended conceptual ideation cannot

exceed four dimensions, and (2) that, in the past, science has demanded models—probably explain the long failure of man to recognize time as an ingredient dimension in Nature. Its introduction has necessitated the abandonment of full models, and the substitution, to a large extent, of mathematical method founded on metrical quantities.

In the block cinema we have the history of a scene from one point of view, namely, that in which the camera was situated. In the Nature depicted by atomic physics (which is in essence abstract), each particular film section would be deprived of its vivid and intimate character, and would present instead the relevant characteristics of all points of observation symbolized as an assemblage of dots. These dots would be projected in the compact block as continuous lines, the intersections of which fix in temporal order the clash of atoms, presumed, in older theory, to underlie all physical phenomena. I waive the relativity conception that the lamination into individual films, depicting instantaneous segments, would not be fixed, but might lie at varying oblique angles. The variation would be within strict limits, and the general principle is not vitally affected.

Eddington notes in Nature a process analogous to the shuffling of cards. If the arranged order of a new pack be disturbed by a shuffle, the extreme improbability that further random shuffling will restore the original order is so great as to amount practically to an impossibility. The measure of this steady advance in Nature to random distribution is embodied in a law of thermodynamics, and is expressed by the term, entropy. While entropy continually increases, the effective energy in the world runs down after the manner of a clock. Hence the inevitable doom of Nature is predicted. This is a most interesting and momentous theory, upon which at present I suggest only one comment. The shuffled pack possesses as definite an order as the new pack, although not so simple to our cognitive faculties. Does Nature, then, *really* display a special recognition of simplicity as we construe it? Although the ordered condition in the pack appeals uniquely to our minds, the return to *any one* random state is equally improbable. In placing the antithesis between the ordered and the disordered we are setting unity, or minority, against the multitude, rather than one against any other single condition. However, as Eddington assures us, the progression towards the random is definite and calculable, and this progression marks in Nature a distinct direction into the future, which direction should be marked with an arrow in the time dimension to show that it is a one-way road, thus contrasting with the space dimensions in which right or left, back or forward, and up or down have no such inexorable significance. The

physical theory is not a new one, but a legacy from physicists of last century, notably, in Britain, Lord Kelvin.

Like other natural objects, our bodies would appear in the world block film, the later end of our lives being forward in time. Now, nobody considers as a vital matter the particular orientation of, say, a worm in *space*; but here is a case where direction is all important—the difference, for example, between a man growing taller and becoming shorter.

Eddington, throughout his discussion, seems to waver between his sense of loyalty to the commanding status of the physical world and the opposing idealistic view which discerns its dependence upon generating mental experiences and concepts, the withdrawal of which would eclipse into non-entity, not only what may be regarded as psychic additions, but every feature in its repertoire. While regarding the scientific four-dimensional world as having some standing objectivity, he, nevertheless, challenges anyone to exclude all rationality and significance from such world by denying the fundamental implication of the forward direction in time. "The physicist may say," he concedes ("The Nature of the Physical World", p. 108), "that the *addendum* asked for relates to *significance*, and he has nothing to do with significance; he is only concerned that his calculations shall agree with observation. He cannot tell whether the phenomenon has the significance of a happening or an un-happening." Then he continues: "There is much to be said for excluding the whole field of significance from physics; it is a healthy reaction from mixing up with our calculations mystic conceptions that (officially) we know nothing about. I rather envy the pure physicist his impregnable position. But if he rules significance entirely outside his scope, *somebody* has the job of discovering whether the physical world of atoms, ether, and electrons has any significance whatever." (P. 109.) Following this sharp definition of the boundary of pure physics, a boundary which he hesitates to overstep, the idealistic view again obtrudes: "The scientific world is a shadow world, shadowing a world familiar to our consciousness. Just how much do we expect it to shadow? We do not expect it to shadow all that is in our minds, emotions, memory, etc." My own question here would be: "Just *why* should we be concerned whether or not it 'shadows' the intuitive process of 'becoming'?" And why should Eddington be so solicitous for the moral character of physical Nature, if that world is merely a world of shadows? Surely values can be taken care of in another, and more original, sphere. Is it really necessary to become involved in obscure theories about a one-way "texture" embodied in this world, or to connect this texture with a property like entropy? Particularly, why should we, like Eddington, arbitrarily

postulate a locality in the brain, sensitive to entropy gradient, to provide an origin for a fact like becoming, particularly as the essential ascription of an ascending sense to this gradient *presupposes* a ready-furnished criterion of direction in time? Of course, the theory is admittedly speculative, for, although entropy must increase in the cosmos, it need not increase in any one locality—the brain; and I assume that there is no positive evidence to substantiate the speculation. Indeed, it would be a curious inversion if the intellect, the chief function of which is to elicit order from random presentations, were itself served by an organ of progressively disordered composition!

That science does not deal with an individual or personal world, but is concerned only with a common domain, is recognized by Eddington. He speaks of actual observers being superseded by an army of ubiquitous (hypothetical) watchers whose joint report is embodied in the conceptual common world (p. 227). To such an army, pervading time as well as space, the Universe is indifferent to “time’s arrow”. In conceptual physical Nature there is no “formality of taking place”. Just as a chart is for the general guidance of mariners, not for recording the emotions or impressions of each voyager, so the block cosmic chart, if sustained in its purity, would seem to be unconcerned with our mode of intrusion into it.

Probably Eddington intends to be somewhat fanciful in his remarks about the pathology of reversed time. In experience time does not go either forward or backward; it simply *goes*. In a featureless medium a motor-car, with a norm of direction in itself, might be said to go backwards or forwards, but scarcely a cricket ball. Events might seem to occur according to a reversed physical law, as when a cinema picture is screened backwards for comic effect, but the time of the observer continues simply to *go*. If we could imagine a super-cinema, which was not only a “talkie”, but a “touchie”, “tastie”, and “smellie” as well, to be similarly reversed—a remote, but not inconceivable situation—an observer might be said to traverse Nature backwards. It would involve simply an artificial method of transmitting the scene of the world to his senses, which would bear to the crude, unaided deliverance of Nature a relation not very dissimilar to that subsisting between the results of experiment with elaborate apparatus and naïve observation of the plain face of our environment.

I suggest that the occasion of Eddington’s “arrow” is the conception of a constant identical personality, by which the successive cross sections, or film pictures, assume an integrated character altogether foreign to the generalized, impersonal viewpoints of the “ubiquitous watchers”, each

of which might be replaced by a camera, gramophone, etc. The whole question, then, is bound up with personality, a certain feature of which Eddington would base upon a "texture" in the extensive world exemplified in brain process. He must recognize that only one feature of personality would participate in this arbitrary projection, for the attempt to found individual personality upon a cerebral characteristic is foredoomed to failure. It is impossible to imagine a physical characteristic of my brain which differentiates *my* feeling of, say, warmth from *yours*. I refer, not to any qualitative difference, but to the absolute numerical difference which ensures that you shall never receive the sensation due to the contact of a flame with my finger. No physical counterpart can be assigned for this complete separation. To science, so long as the appropriate physical reactions occur, it is a matter of absolute indifference whether the conscious experience should be yours or mine or a mixture of both, as is evident in the doctrine of behaviourism. Even if we could imagine two absolutely similar bodies and brains, it would be absurd to suppose that the personalities would on that account merge. Nor can their failure to do so be attributed to a differing identity in the composing matter, for that would imply an investing of matter with some non-empirical quality. Moreover, the flux of the physical constituents revealed by modern research removes any colour of plausibility from a doctrine of permanent particular substance in matter. A physical domain has no place for the manifest, but unprojected fact of individual personality, the true source from which the notion of identity takes its origin.

In speaking of the super-cinema picture in which an observer might be subjected to a reversed reproduction of normal experience, even with the accompanying feelings, we might have noticed one conspicuous feature of consciousness which would stubbornly resist the process of reversal, namely, volitional causation, the real essence of personal life, the inversion of which would be as absurd in conception as a square circle. It is here, not in passive reception, that external manipulation and external standards must fail. This carries a suggestion which leads to my third topic.

The Partial Indeterminism of Nature.—A point raised by Eddington, which is indeed sorely troubling the pioneers of science at the present time, is the apparent failure of the causal concept in the realm of quanta and sub-atomic physics. The difficulty may be summarized in the statement that the jump of electrons in connection with the reception and distribution of energy cannot be forecasted as a consequence of a specific cause. Statistical averages of these jumps are definite and

amenable to causal law, but there is an indeterminism in detail. This, Eddington suggests, may turn out to mark the liberation of will from the shackles of compulsion, implied in a causally determinate world.

I must confess that this supposed liberation leaves me rather cold, because I doubt the efficacy of the assumption to affect the vitals of this ancient problem. In the past, theology has found much concern in the issue, but, from its point of view, the problem is left where it was, whether God be regarded as a Person or as the principle of order in the Universe. In both cases firm decree and organization are almost synonymous with determinism in some sense, but not necessarily in the sense that denies free will. If I may lay aside momentarily the severely dialectical tone which naturally characterizes an inquiry of this kind, I should say that it would seem rather unbecoming in those who, in the past, have denied any necessary antagonism between a world subject to law and the free responsible agency of the individual, to snatch at a straw of this kind, and thus admit a weakness in their former position. I think that the antinomy which this problem seems to present arises from the confusion between the conceptual world of Nature and the real self-existing world of individual experience. Free will simply exists as a fact of the most primitive and superlative order, and it can no more be an illusion than can the pain of toothache be illusory. But the fact of free will is one belonging to the individual world, not to conceptual Nature. I do not think we need feel any relief from the circumstance that certain electrons in our brains have elected to play a lone hand, but, with this chaotic principle admitted, we might well be uneasy for the future of science and perhaps, also, for the ultimate fate of the universe. Science, in the eyes of some people, has been allowed to assume the aspect of a Frankenstein monster, menacing its maker. But why should our trusty servant, really a departmental administrator, be supposed to represent the whole function of government? Free will is as plain as the proverbial pikestaff in experience, but bewildered men have looked for it, of course without avail, in the conceptual world of science, from which, since the days of fetishism, it has been deliberately excluded. On the one hand the advance into novelty is perpetual; on the physical side conservation is the basic law, which, imposed for our purposes upon conceptual Nature, resembles, as Bertrand Russell has said, the "great law that there are three feet in every yard!"

The value of free will, then, is settled in accordance with its manifest valid existence in our intimate experience. No doubt it may be disconcerting to think that our choice is foreknowable or foreknown, but it is difficult to see how that

affects the intrinsic quality of the act, which stands on its own merits. Perhaps we all have sufficient of the mystic in us to accept with reservation the conclusion which I showed to follow, even irrespective of Einstein, from the purely physical interpretation of Nature, namely, that there is no definitely assignable contemporaneousness of minds; but, if we do accept it, foreknowledge *in others* does not differ essentially from after-knowledge, which latter would clearly carry no detriment to free will. If the agent himself could know what he must do, certainly an impossible position would arise, but knowledge at best is fragmentary, and Nature, though it be theoretically *determinable*, will never be humanly *determined*, and least of all in the complexity of organic life. In the distinctions drawn in this discussion we touch again upon the central problem of becoming, and its correlate, personality. The word "must" implies compulsive volition, whereas in Nature there is, strictly speaking, no "must be", but only the simple future, "will be".

Before I close, please allow me to disclaim any fundamental objection to the departure of Eddington and others from the physical concept in its purified character of metrical extension, provided such a departure is clearly recognized and finally justified by results. It seems quite possible that a new scheme of knowledge should arise and embrace a larger and fuller scheme of concepts. My most important object has been to emphasize the barrier which separates the field of science from that of intimate actuality. Many acute thinkers, and notably, of late, Whitehead, in "Process and Reality," favour a scheme, reminiscent of Leibniz, in which all entities, including the elementary physical indefinables, derive their entire import from their place in the organism of the Whole. Practical science is scarcely in a condition to apply such a generalization, even if it were accepted, and so two classes of entities, the physical and the spiritual (using this latter term in a wide sense), might claim, at least tentatively, separate abstractive spheres. This claim, at all events, receives the support of Eddington, who says: "Correlating a real physical world to certain feelings of which we are conscious does not seem to differ in any essential respect from the sanction of correlating a spiritual domain to another side of our personality." If an illustration already used in a different sense may be employed again, it might be said that we can play with our individual experience as with a pack of cards—play any game we choose; and a bridge player must not criticize, say, a euchre player because the latter is not using the whole pack, or obeying bridge rules, or *vice versa*. Eddington, if he had employed this figure, would have considered the scientist as analogous to the euchre player, for he says: "Within the whole domain of experience

a *selected portion* is requisite for development by the scientific method."

There is, then, no limit to the number of possible conceptual worlds, and no single one can be assigned a pre-eminent character somewhat vaguely dubbed reality. Eventually a science may emerge which will require, not only "time's arrow", but many non-physical elements, such as "rays of luck" (Eddington), and which will possibly unify in a convergent scheme the combined domain of our grosser and more refined satisfactions. Such a world, however, will not be physical in the hitherto accepted sense, and, whatever its character, it will, by its very constitution, continue to be a commonality, differing in essential respects from the pure deliverance of consciousness, which is the foundation rock from which all subsidiary structures must be hewn.

LIBERTY AND DISCIPLINE.¹

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OFTEN is it declared that there is an absence of moral and spiritual leadership in affairs today. To some extent this may be true, but it is also possible that some of those who are loudest in their assertions are busy rationalizing to disguise their resentment at such attempts as are being made to restrict or control their own undisciplined conduct. None but a God, said William James, can drive the universe abreast. Is it that leadership is vague and conflicting because ours is an age of bewildering complexity? Social, economic and political conditions are changing with such breathless rapidity that, despite the spirit of goodwill which ordinarily animates men, they stand dumbfounded before the perplexing situations which are everywhere arising. In the more symmetrical societies before the modern industrial era, the problem of freedom and control was comparatively simple. Those earlier civilizations had established a series of disciplines which imposed easily understood restraints upon anti-social actions. Customary and traditional rules had imperative force. The ties of family and the sanctity of religion kept people to well-defined tracks. Government and law provided simple, if needed sanctions. Sometimes some of these disciplines were swept away by social or national upheavals, but as soon as the storms subsided, new controls were established which provided society with requisite standards. Upon this world, itself big with coming changes, burst the unsettling forces of the Industrial Revolution, and further confusion was added by the political and social upheavals of the French Revolution. In the new social integrations which followed, liberty became the dominant principle in determining relationships. The old controls were assailed because they seemed to restrict men's freedom of action, and to obscure their vision. The ambitions of men found scope for free play in a philosophy of individualism, and social obligations were discharged on the principle of Benthamite utilitarianism, or the general good. But the forces of individualism effectively prevented the emergence of a government strong enough to ensure the provision of general welfare, and when at last the philosophy of unqualified individualism was discarded, fundamental defects were disclosed

¹ Notes of an address to the S.C.U. Conference at Wallacia, on Saturday, August 2, 1930.

in the new society which had been created. Europe had entered upon mass production which profoundly affected the social and economic status of everyone engaged in industry, and, further, gave an entirely new significance to the institution of private property. Later America entered the arena and has since been tirelessly at work in an insatiable pursuit of wealth and power. The race for supplies of raw material involved the appropriation of the rest of the world, and this scheming and plotting for new worlds to conquer has become second nature. Instead of this frenzied activity bringing lasting satisfactions, it has merely served to whet the appetite for more, for despite an unprecedented output, there always appears to be an insufficiency.

This absorption in the business of production and accumulation has resulted in the labelling of this age materialistic. *Æsthetic* values have been submerged, if not discarded. There should be, said a wise observer, a qualitative criterion which should be the measure of quantity. Is this possible? Can we set a limit to the desires of men, and to the quantity of their riches? What are legitimate needs and where does extravagance begin? Can we find a criterion to distinguish between essential consumption and ostentatious display? We are oversupplied with the means for a high standard of physical existence. For is it not true that there is scarcely a field of production in which the application of perfect technique would not double output? Half our farmers could provide our wheat, half the miners our coal. We have not merely solved the problem of providing subsistence which Bentham postulated as the main purpose of government organization, but we have discovered the secret of abundance. Unfortunately, we have shown less skill in devising methods for the proper distribution of that abundance which too often cumbers our hands. And yet we continue our headlong chase after satisfactions. We do not know where or how to stop. Whether we are producing consumption goods or armaments, whether we are adding to our populations or our store of knowledge, we are carried ever further afield. No result is sufficient, and none is final. We are ever pursuing an end which retreats as we approach. Hence the difficulty of leadership, and hence also the irritation at suggested restraints.

There is, as we have suggested, no doubt about our ability to produce wealth. There is much to show our inability to ensure welfare. The exploitation of our material resources becomes an end in itself, or as a means to power. Instead of promoting the highest good which this material wealth makes possible, the struggle to possess and retain it simply foment dissensions. If we honestly sought to establish the Kingdom of Heaven on earth we should not tolerate a condition in which

many people suffer hunger while crops and commodities drug the market, or in which even more people are wretchedly housed though the building industry is chronically stagnant.

But our attitude towards the utilization of our material resources is only one indication of the vagueness and inconclusiveness of our moral and spiritual leadership. Is not another aspect of it to be found in the new phases of the struggle between the principle of liberty and the necessity for restraint? Paradoxically true freedom is impossible without control. One can liken the nineteenth and twentieth centuries to the chariot of the sun with its high-spirited steeds driven by Phæton. For the disciplined control of Apollo's, we have substituted the untutored, yet over-confident hands of Phæton and we have been speeding along magnificently enough. That we have not yet been hurled headlong from our course as was the mythical Phæton is probably due to the disciplines which we inherited from those older civilizations. For example, Lecky avowed that England was saved from an upheaval similar to that which racked France by the influence of John Wesley and his disciples.

But for several decades that madly driven chariot of civilization has been showing increasing signs of lack of equilibrium. It may be that Phæton is losing his confidence. It may be that he has lost his sense of direction. Or to abandon our mythology, is it that the inherited restraints, which since the break-up of the Holy Roman Empire have ceased to have a unifying influence in the interpretation of life, have lost their force? These controls were wearing before the war, and that cataclysm but accelerated their deterioration. Traditions were being discarded, customs were proving unstable: they were becoming fluid things subject to the caprice of the moment. Thus economic conditions are threatening the institution of the family, which is no longer a school of discipline. Scientific thought has been undermining the influence of religion.

Although freedom is claimed for thought and action, men are, in fact, unfree. They are enslaved by business and pleasure. The methods of large-scale industry have reduced them to a hitherto unknown condition of dependence. Individuality is crushed by gigantic corporations. To escape a too vivid realization of their lot, men plunge into the distractions of commercialized sport and pictures. The whole *tempo* of their lives prevents any time for reflection and meditation. How few are there who see any point in the quiet contemplation which characterized the Hebrew Psalmist! Where are those who indulge in the "sessions of sweet silent thought" whence Shakespeare drew his strength? Who would today believe Milton when he says that "wisdom's

self, oft seeks to sweet retired solitude, where with her best nurse contemplation, she plumes her feathers and lets grow her wings, which in the various bustle or resort were often ruffled and sometimes impaired"??

Yet in business, in politics, and in the home, how much is lost by neglecting time for reflection upon the purposes and methods of our various institutions and agencies! Paradoxically again, one reason is the want of time and opportunity. For if modern industry has multiplied the hours of leisure, modern life more than absorbs the time so gained. For if modern industry has liberated men from the prison-house of shop and office where long hours formerly made the problem of conduct simple, modern life has introduced more than proportionate complications. Formerly only the rich man's son had time to waste. The poor man and his son worked from dawn to dark, and little energy remained to carry them far from the traditional paths. Many of them today enjoy a five-day week of forty-four hours. They have two free days to use or waste. Again, smaller families, flat life, and domestic labour-saving devices have revolutionized the routine of the housewife, and some of the time so saved she frequently uses in participating in the activities of ever multiplying associations. Who shall say whether this freedom is providing new disciplines?

A civilization cannot keep its sense of direction if it concentrates solely on speed, or its sense of values if it thinks merely of output; it must provide for some restraint. Must we then seek to replace the old brakes that we inherited with the nineteenth century, or have we to invent a new type? Graham Walla's has reminded us that the rapid growth in the size of the Great Society necessitates not merely an overhaul of our old institutions, but the improvising of new ones. But this is precisely what is so difficult, either because we have not the time, or because we dislike restraint. Until we improvise them, we shall continue to live leaderless this life of feverish uncertainty and confused industriousness. We need, as ever, religious, moral, political, economic, and intellectual disciplines. In some respects we have developed a new discipline. We profess to accept the dominion of science, although we still neglect many of its results in matters of public and private health. But science is also a contributing factor to the dissolution of those traditional religious and moral standards upon which civilization formerly depended. Dean Inge and Sir Oliver Lodge see nothing but gain in the destruction by science of those half-truths and superstitions which have often masqueraded in the name of religion and morality. As a result of this purging, they see the first indications of a new order with religion more compelling because more rational.

And in proportion as the principles and institutions of this new order become clear, the moral and spiritual leadership which is not confused, will afford fresh inspiration.

It would be interesting to speculate about the places of the family and of social morality in the new order, and to consider what we shall devise to replace the old disciplines in these relationships. Bertrand Russell and Walter Lippman have much to suggest, but there is little time to consider them. I should like to conclude with a reflection upon the need for a higher intellectual discipline. The new social order must find a new interpretation of social obligations, and this requires better individual development. True liberty is possible only when everybody is passionately anxious to provide conditions in which every one has the opportunity of being his best self. Herein lies the true significance of the discipline of service which is perfect freedom.

Mention has already been made of the increased leisure with which modern industry has provided adult workers. May we let our minds dwell for a moment upon "the rapture of the forward view" which adult education makes possible. We who are engaged in the work of adult education believe that in the multiplication of the wise lies the welfare of the world. Hence we would continually increase opportunities for intellectual enrichment. Important as is education in primary and adolescent stages, it is imperatively necessary in adulthood. For many of the social studies are only susceptible of complete comprehension with maturity. It is then that the problems of life can be analysed and anticipated. It is through adult education that goodwill can be informed and directed. We can hope, for example, that out of the fullness of wisdom and understanding will come that irresistible support which governmental efforts require to reconcile our social and industrial conflicts. And we can also hope that with such a foundation, the age-old opposition between the principle of liberty and the necessity for discipline will be safely resolved.

KINÆSTHESIA AND THE PIANO.

By MARY COCHRAN,

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(Author of "Ultimate Principles of Pianoforte Teaching and Playing and the Games Method," etc.)

WHICH is the most important of our senses? Obviously neither of the "lesser" senses, touch, taste nor smell, but surely one of the "higher" senses, sight or hearing? No, there is a sense which is more important to us than sight or hearing, one which we use as unconsciously and as unceasingly as the air we breathe, the sense of kinæsthesia, the movement sense, the muscle-tendon-joint sense.

The "lesser" senses were so named because they exist for the preservation of the body. Sight and hearing were called the "higher" senses because they give greater knowledge of the external world and are thus highly educative. Yet Helen Keller, deprived of both of these valuable senses when only nineteen months old, became a highly educated, cultured and useful woman.

Little Helen's gateway to knowledge was the sense of kinæsthesia, aided chiefly by the sense of contact, but also by the other "lesser" senses. She described herself later as "a veritable vibroscope, a faithful echo of the slightest vibrations of the air". But she is more than a mere echo. Her highly developed kinæsthetic perceptions make her aware of the differing significance of the different kinds of vibrations of the air which reach her. They come to Miss Keller as they come to ourselves, seeking by the ordinary channels, the ears, entrance to the brain, there to be changed from vibrations into sensations of sound. But entrance and consequent change have been unhappily denied in the case of Miss Keller. Fortunately, however, the organ of hearing, the ear, is not the only channel by which the sensations of vibrations may be conveyed to the brain. They may reach the brain by the organs of kinæsthesia as movement sensations, though not as sound sensations. These organs are placed in the muscles and tendons and about the joints.

If C, the second line above the treble, be played on the piano, and a finger placed upon its wire, the vibration sensation is conveyed to the brain by the sense organs in the muscle of the finger. Further, if C, two or three octaves lower, be played and a finger placed on its wire, a *difference* in the vibrations will be perceived. But our perception of that difference is crude indeed, when compared with the highly developed kinæsthetic perception of Miss Keller. She does not require

to be in contact with the vibrating wire. By merely placing her hand on the case of the instrument, she intelligently senses the vibrations which have been transmitted to the case. She *enjoys* music played on the piano, when thus in contact with the instrument, although she does not *hear* that music. She can dance, keeping time with the vibrations of the music of an orchestra, which reach her from the floor.

Kinæsthesia, that blessed sense, has enriched the life of Miss Keller unspeakably by the many activities of ordinary life which it has made possible to her. Obviously, there are other activities, which might also have been made available had time allowed. But amongst those others we should hardly expect to find the art of pianoforte playing. The potentialities of this wonderful sense, however, make even this possible.

The Philadelphia Music Magazine, *The Etude*, September, 1928, gives a remarkable account of another Helen—Helen May Martin—who lost the senses of sight and hearing when only one week old. Miss Martin learnt to play the piano. Like Miss Keller, she senses a composition played to her, with her hand in contact with the piano. She *recognizes* a familiar composition and feels it emotionally, as her changing facial expression shows. She learns a composition, one hand at a time, the free hand learning it bar by bar from music specially designed for the blind. Should she play a false note, she is made aware of the fact by the *unexpected character of the vibrations*, which reach her through the left foot, kept pressed against the front board of the piano. She knows about a hundred compositions, including the "Moonlight Sonata" and a "Liszt Rhapsody". This wonderful girl, who has never heard the sound of a piano, has never seen a piano, yet plays in public.

The achievements of Miss Keller and Miss Martin fill us with sympathy, with admiration, indeed with reverence. But it may prove a serious loss to those of us who are teachers of the piano, or indeed of any other subject, if we allow the matter to end there. Kinæsthesia is not a rare possession, we have it ourselves and our pupils have it also. The matter, therefore, has a personal interest for us. Miss Keller and Miss Martin were obliged to develop kinæsthetic perception in a particular direction, a direction unnecessary if not impossible to pupils blessed with the sense of hearing. But this fact does not imply that the development of kinæsthetic perceptions in other directions is not so important to our more fortunate pupils.

One authority writes on the subject in relation to general education as follows: "Only now are educators beginning to realize the indispensable usefulness always and everywhere of kinæsthesia, the feeling of movement. Kinæsthesia is

about, however, to come into its own as the primary and essential sense."

If there is one thing more important to a teacher than another, it is that his pupils should become thinkers, that they should form a *habit* of thinking. Scientists have discovered that the brain of a child is specially adapted to think through kinæsthesia, the feeling of movement, that he thus learns to think most effectively, also that "the child who does not form a habit of thinking, forms a habit of not thinking".

The pianoforte pupil has always used the sense of kinæsthesia in his work. He could not walk to the piano without it, nor depress a single key. Hitherto, we have usually been content to let him use it *unconsciously*. We have not usually set ourselves the task of developing his kinæsthetic perceptions as we developed his pitch perceptions, for example. But when we do so develop his kinæsthetic perceptions, and thus enable him to use kinæsthesia *consciously*, the results are surprisingly good.

Kinæsthesia is the most precocious of the senses. I watched its development in a little child, now nineteen months old. Like other infants, this baby girl, from the earliest months, could move her arms and hands freely, and could grasp an object firmly, but she could only *release* an object slowly and with difficulty at nine months. At eighteen months, the age when infancy ends and early childhood begins, her sense of kinæsthesia was sufficiently developed to permit expression to her sense of time. This was proved by a little game which suddenly occurred to me. In the game, which the little one grasped at once, she and I, at a distance of about five or six feet from each other, took four or five quick little steps, then paused, looked at each other, laughed, and repeated the game. We repeated it several times to the baby's great delight. The senses she used were kinæsthesia, contact, time, sight and hearing.

This was a most interesting experiment, in that it confirmed the teachings of psychology on several points. These points were: (1) The early development of the senses. (2) The wisdom of early guidance of the senses. (This was evidenced by the baby's delighted response.) (3) The fact that the sense of kinæsthesia is basic to the sense of time and, by inference, that the sense of time is basic to the sense of rhythm. (It was evident that the sense of time must be more fully developed before the sense of rhythm can find expression.)

Psychology not only teaches that the senses develop early, but that they are early developed to their maximum. We, therefore, cannot improve the native acuity of the senses. Nature attends to their full development herself without our aid. All that we may do is to select a suitable activity through which

chosen senses may express themselves, to remove all obstacles to that expression, to develop perception through those chosen senses in their proper sequence, and to begin the development of sense perception at the best age. The senses used in piano playing are kinæsthesia, contact, time, rhythm, hearing and sight. These senses are ready to be guided by us in direct pianoforte lessons when the child is five years old, and the fact that they are ready is a pretty strong hint that then their guidance should begin.

Children are ready to begin direct pianoforte lessons then at five, but only from teachers who have been prepared to teach children from the age of five. Skilled kindergarten school teachers have been specially prepared for their work, and after preparation, pianoforte teachers can teach children of kindergarten age just as successfully. This fact is proved daily in our studio where we enrol pupils of five as a matter of course, as well as older and more advanced students.

We teach the little ones in small groups of three, four or five, but each child is taught individually. We teach them by games. Games intended neither to amuse them nor to arouse interest in their lessons, but games which *are* lessons. Young children can only attend to what is interesting in itself. so every detail of the lesson must be so interesting as to be a game. The games have no climax, they need none. The mere playing of the games satisfies the children because of the pleasant sensations given by them. The games are not competitive because young children like to play individually, although in the company of other children. Older pupils play the games as exercises.

Even at the early age of five, a child, although conscious of the object of a movement, is unconscious of the movement he makes to attain that object. Our first task, therefore, is to make the child (or older pupil) conscious of his movements, to re-arouse kinæsthetic sensations in and about the acting joints. This we do in games so quickly learnt, that usually young children are able to begin to apply them in the first few bars of a little piece at the piano at their first lesson. And how this delights them! The senses of contact, sight, hearing, time and rhythm help in the arousal of conscious kinæsthesia.

We have proved that kinæsthesia is the most educative of the senses and therefore use it whenever possible. Its use, happily, is possible in every subject we teach young children. Its constant use throughout the whole lesson is, no doubt, the principal reason why the lesson is so enjoyed, for continual movement is as natural to young children as breathing. To expect young children to keep still is to demand of them a fixation of attention on the inhibition of bodily movement.

Kinæsthesia, aided by one or more of the senses of contact, hearing, sight, time and rhythm, is used in teaching correct muscular condition, pianoforte positions and movements, note-reading, time-reading, ear-training, transposition of little pieces at the piano, and theory as far as the construction of triads and chords of the seventh. No games are more enjoyed than the theory games. Time and rhythmic perception are developed rather by suggestion than by special games. Developed kinæsthetic perception sets these senses free and they give little trouble with young pupils. Musical appreciation is developed by hearing music within their capacity.

We have realized to some extent the enrichment of the lives of Miss Keller and Miss Martin by the development of kinæsthetic perception in a certain direction. What has the development of kinæsthetic perception in other directions done for our little pupils? It has made possible to them an early and joyous entrance to the world of music and at the best age. Ordinary children come to us, eager and smiling, for what are to them music-games, but to us serious lessons. They leave us with reluctance. To our advanced pupils in whom it has been well developed, it has given a muscular and nervous control otherwise unattainable to many of them. For us, their teachers, it has done much, it has made our work at once easier and more effective. It has made it possible for us to reach our highest ambition as teachers of the piano, the attainment of the same degree of success in our work as is secured by trained, skilled school-teachers in theirs, and from the same early age. More than this we cannot hope for, less than this should not content us.

CORRECTION.

"CREATIVE MIND."

A CORRECTION BY C. SPEARMAN.

MAY I be allowed to correct on one point the interesting report given by your correspondent, Dr. Sutherland, of the International Congress of Psychology in the United States. He quoted me as "admitting that psychology was as yet unable to give an adequate account of creativeness" (this Journal, December, 1929). I am afraid that, far from really admitting any such thing, my whole avowed purpose was to supply just such an account! But if he or anyone would like to examine for themselves at their leisure whether my venturesome enterprise had any success or not, I should like to say that an expansion of my lecture is now being published.

IN DEFENCE OF THE TALKING PICTURE.

By DR. A. H. MARTIN, M.A., Ph.D.,
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REPRESENTATION by pictures either through the physical medium of the eye by means of a drawing, plan, or diagram, or through a mental image, is the one method whereby man thinks, and so differentiates himself from the "beasts that perish". No matter whether it be a scientific theory of ions and atoms, an architectural vision of a lofty cathedral, or a philosophic concept of the universe, all and each have their primary origin and final application by means of a mental picture or image. Dreams are wholly of this nature; writing originally consisted of picturegrams, and some individuals never use any other medium for thinking save the image itself. With such a mental bias, can it be wondered that the talking picture, presenting life in all its phases, has become the ruling passion of the people as a means of relaxation and amusement?

Originally pictures began with the cave men, whose rude drawings, still preserved in some of their rocky dwellings, possess in some cases the spirit and vigour of a draft by Michael Angelo. The next stage of "picture" history shows a strange combination. A Renaissance monk, one Athanasius Kircher, who was also a student of optics, presented to a gathering of the nobility of Rome a representation of the Devil and other popular phantasmagoria of the times—the first "magic lantern show" on record. Then a combination of the efforts of great men of science and invention towards the close of the last century and in our own time gave us the first "movies". These were at first mere flat shadows of the screen, in form flickering and ghostlike. But the shadows gained depth and shape and took on perspective, and then these ghosts borrowed the flesh-and-blood tints of nature, and so gained body. Out of the depths of silence they have found a voice, still harsh and hollow perhaps, but with more than a semblance of humanity; so that although perfection is yet to come, the screen ghosts have now attained real being. The "talking pictures" as they have developed up to the present have piled up vast fortunes, established huge industries and mightily accelerated the progress of cosmopolitization—if one may be permitted such a Wellsian term—which will in future history distinguish the present century in the march of world development. Nations, now fully aroused to their value, are regarding picture "rights" with jealous eyes, and are carefully supervising their possible effects on general morals and popular education.

So much for the economic and educational sides ; but can this kind of representation be styled an art, or is it merely an amusement ? Much controversy might be engendered between "Highbrow" and "Pro Bono Publico", two doughty champions who may be ready to take sides on this moot point. The truth stands however, that art does not lie in the medium that is used, but rather in the merit and perfection of any work considered for itself as attaining a standard of beauty. There can be art even in "picture" or "talkie" if it attains a sufficiently high standard of artistry. Up to the present, the attention of film directors has been concentrated on the technical aspect of media. As a result there is floridity and exuberance rather than the restraint necessary for artistic composition and production. Again, when it is remembered that the picture princes and barons originally graduated from the ranks of "nickel showmen", it may not be doubted that the principal incentive to production up to the present has been the economic principle of pleasing the public and piling up the dollars. Only rarely have artistic ideals had a chance to struggle up amid the weeds. But though few, there have flourished some artistic blooms of worth and beauty. Now that the technical side has almost exhausted its possibilities, competition will probably drive production towards the search for genuine artistic ideals. Germany, for instance, with quiet but dogged persistence has sought these through the symbolic scenic background ; America has occasionally attempted them through the grandeur of pageantry ; France, probably compensating for the clear logic of her intellectuals, has occasionally found emotional outlet in the religious mysticism of the supernatural which transcends all logic.

Yet there is no need for despair on account of this tenth muse, which our own age has added to the original nine of the ancients. If we consider that a bare few among the more than five thousand novels that are annually published in the English tongue will live on as classics, it will be cheerfully admitted that very few may be adjudged as approaching the highest standards. There is no need therefore to condemn the pictures unduly. Again, the "legitimate" stage includes, beyond Shakespeare's creations, very few immortal works, even in our own age, excepting, of course, Bernard Shaw. Possibly in the University curriculum of humanities of two centuries hence, learned professors of the "art of the talking picture" may yet present to students a few elementary classic gems which have been sifted from the production of the first quarter-century of the art. As yet, however, no Shakespeare of the screen has arisen : he is yet to be born. But there is no reason why among the picture directors of the future one or other may not yet be found who will rise to classic levels. The

time, in fact, is almost ripe. Such a genius will not necessarily be cryptic or abstruse, but one who, knowing and throbbing with sympathy to the simple passions and struggles of humanity, will portray them for the enjoyment of the populace as did once the immortal "Will." Then the possibilities of technique will not be exploited merely to "show off" such achievements, but will be subordinated to the ideals of picture art. The pageant, the play of passion and pathos, the humour of the clown, the mystic touch of the supernatural, will all be harmoniously blended and will achieve immortality. The acid test will be whether such productions will bear repetition and be shown again and again through future periods. There are indeed very few of which this is true in the existing records of our own period.

A present defect one may feel assured he will avoid—the literalness of the pictures of the present time. It may appear good policy to draw out the close-up of a scene with glycerine tears, for the public appear to demand plenty of emotion. Yet condemnation of excess of the sentimental is summed up in the popular term "sloppy". Such a word fitly describes most of the screen presentations, as well as most of the novels of today. In many cases the exploitation of emotions borders on bathos. The public do not, however, really enjoy an orgy of emotion, but rather a restrained and balanced effect. The process of self-identification with the characters loses artistic effect if the process is carried over too closely. One finds such an almost complete self-identification in young children as well as in older but still childish natures; the normal individual never goes so far. One keeps one's distance from the point of complete fusion of self with the characters, so that, in addition to experiencing similar passion up to a certain point, intellectual critical appreciation of the picture as an artistic creation is yet retained. Such an effect of restraint has hardly yet been attained by most of the pictures of today, for the policy of the directors is obviously to provide "sob stuff".

Again, the Shakespeare of the screen will portray not only comedy, or the drama with the happy ending, but tragedy will be his field as well. This will be the highest of his achievements as they are, too, for the stage. For tragedy, as Aristotle pointed out over two thousand years ago, has a lesson of humility to teach to mankind. As the same particular defect of character or unwise act of the hero invokes the pursuit of the "furies", those ministers of the avenging fates, till he finally reaches ruin or destruction, so the sympathetic pity and terror of the onlooker induces in him a becoming humility for his own frailties. Man, and above all the modern man, on account of his pride of conquest over the material side of life,

is in dire need of such wholesome lessons. Only a great artist could accomplish effectively such a result, blending artistic creation with an effective and salutary moral lesson.

If the present talking picture has not attained such artistic ideals as these, still as the people's greatest form of amusement it has accomplished something worth while on a more mundane plane, for which it deserves the gratitude of all thinking men. As a means of general education in the humanities, teaching us of other peoples and of other times, as a news teller and portrayer of facts, affording an introduction to classical literature, in short, as, serving the office of popular and general educator, it has achieved far more than the printed page. As a portrayer of humanity, its passions, its struggles, its pettiness and greatness, to many individuals it has also far outrivalled literature. As affording an outlet to the pent-up emotions of humanity, which our modern social system with its conditions and tabus inhibits from practical expression, it is an aid to law and order. A more homely benefit still it adds to these others; many individuals, who might be otherwise committing a mischief or even a more serious offence, are, when attending the picture show, under the surveillance of the rest of the community and so prevented from such acts. All these are solid social benefits.

Ignoring these social benefits, however, the highbrow and the fanatic occasionally allege serious charges against the pictures. The burden of the indictment is that "they induce the male youth to commit serious crime, and both sexes to commit immorality". Of the former not so much is heard today nor yet so widely. That indictment may be answered by pointing out that, except upon a few suggestible and irresponsible morons and mental defectives, the result of criminal example is negligible in the community. Our present generation grew up on surreptitious "Deadwood Dicks", with the result of much harmless play effects and a minimum of real "hold-ups". The latter were perpetrated by unbalanced types who could not restrain themselves from complete "identification" with the hero-villain; such irresponsibles are now either in gaols or mental hospitals. Again, much may be said against the charge that the talking picture is provocative of sexual immorality. Suffice it to say that similar allegations have been made against religious revivals, which also affect emotionally some unstable and unbalanced natures who attend them.

Probably the really bad effect of the "movies" is not direct at all, but rather an indirect one which operates by flaunting the splendour and pleasures of wealth before a community whose standards can never really hope to achieve such levels. The rankling effects of such a contrast with their

own sordid conditions may induce the morally unstable towards methods which promise "easy money". But, again, for the balanced majority the effect must rather operate as an urge towards a general higher standard of living. Only intemperate or unbalanced natures, then, are likely to be seriously affected by "the pictures"; the sane majority will preserve a safe "distance". But are we sure that such do not succumb to other influences besides? The probability is that they would be affected anyway by some disturbing influences whether they attended pictures and plays or not. Finally, a safeguard against such possibilities exists in the thoughtful and sane censorship which is exercised over every such production. This is a guarantee both against excessive emotionality and immoral and criminal influence for the normal majority.

Therefore, to the tenth muse of our own age society is deeply indebted for the genuine practical benefits as well as for the hygienic gift of healthy amusement. Future generations will bow to her in veneration of her artistic triumphs.

THE VALUE OF INDUSTRIAL PSYCHOLOGY.¹

By H. TASMAN LOVELL, M.A., Ph.D.,
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IN Industry today one hears much about the elimination of waste as also about rationalization of procedure in factories and in business. There are different kinds of waste in Industry and different methods of rationalization. Perhaps, however, the most deplorable kind of waste is the waste of human energies and abilities ; while the most effective method of rationalization is the application of science to work, involving the scientific arrangement of the conditions of work and the scientific selection of the worker. It will be obvious that the application of proper methods of rationalization to industry will itself involve the elimination of a good deal of the waste of human energy and ability. It is upon the science of psychology, in one of its many branches, that there has fallen the task of eliminating waste and of selecting suitable workers.

The waste of human energy in Industry is mainly due to the effects of fatigue ; while the waste of human ability is due to misdirection of energy into a kind of occupation or vocation for which the worker is unsuited. Hence the two great problems confronting the Industrial Psychologists are : The problem of fatigue, and the problem of vocational guidance and vocational selection.

“ The conditions of work which bear upon fatigue are : Lighting, ventilation, temperature, noise, seating accommodation, position of the body in relation to the bench or desk used, the tools or machinery employed, rest pauses or changes of work, the best size and weight of tools for particular tasks, and the most economical movements.”

The attempt of psychology to avoid waste of human ability, to utilize the special aptitudes of each worker, is technically called “ Vocational Guidance and Selection ”. Vocational Guidance examines the individual in order to tell him what his aptitudes are and for what work he is best fitted. Vocational Selection analyses the work in order to place on record the kind of abilities required for that kind of work. The one fits the work to the individual ; the other fits the individual to the work. In the one case, suitable occupation is being found for the individual ; in the other case, suitable individuals are being found for the work that has to be done. This branch of psychology aims at avoiding the waste of energy and ability,

¹ See: (1) Charles S. Myers, “ Industrial Psychology in Great Britain ”, London, Jonathan Cape, 1925 ; (2) *The Journal of the National Institute of Industrial Psychology*, 329 High Holborn, London ; (3) Reports of the Australian Institute of Industrial Psychology, 26 O’Connell Street, Sydney.

the loss of wealth, and the discomfort and unhappiness caused by what is popularly called putting the round peg into the square hole. Individuals differ in their native gifts, in their abilities and aptitudes, just as they differ in their facial features. Just as they are born with different shaped noses, ears and chins, so are they born with different capacities and different degrees of those capacities. It says a good deal for the progress of psychology, a science of which it would be well for our people to know more, that it is now in a position, without quackery and quite scientifically, to decide what are the capacities or special abilities of an individual, and to some extent in what degree he possesses those special abilities.

Individuals, then, will always be more fitted for one kind of work than another ; and they will do that one kind of work, if they are fortunate enough to get it, with more efficiency for their employer and with more satisfaction to themselves than any other kind of work. If this ideal, a consummation devoutly to be wished, could be universally realized in Industry, the sum of human happiness and human efficiency, of national wealth and national contentment, would be amazingly increased. Work is often regarded as a curse, but congenial work is a source of happiness and approaches play : that is a reason why one man goes whistling to work while another drags himself wearily to drudgery.

“Undue fatigue and strain, uncongenial work, compulsion to do work for which we are not fitted, and the lack of opportunity to use our special gifts and talents to the greatest advantage—these are the curse of work.”

“The new application of science to work is destined to help all classes of the community. The worker will benefit by better health, less fatigue, more satisfaction in his work, more opportunity to enjoy his leisure, and improvement in his real wages and standard of living. The employer will benefit by increased output, fewer accidents, less turnover of labour, better opportunity to compete in the world's markets. The country will benefit by a happier, healthier population and by increased creation of wealth.”

In England this work was first undertaken by the Industrial Fatigue Research Board, established by the British Government in 1918. The various reports of the Board appear from time to time, published by His Majesty's Stationery Office at a very small cost. They are well worth the perusal of every employer. Later, in 1921 and on the initiative of Dr. C. S. Myers, of the Cambridge Psychological Laboratory, there was established in London the National Institute of Industrial Psychology. It received at once and has kept the moral support of some of the finest brains and most influential citizens from the ranks of politicians, medical men, physiologists, business men and

psychologists. Among them were the late Lord Haldane and the late Earl Balfour. Earl Balfour was President of the Institute at the time of his death. The reason for the support given by these influential people was the expectation of relief for British industry, amelioration of the lot of the working man, and better relations between employer and employee. Their continued support has shown that they have not been altogether disappointed in their hopes.

The financial support for the Institute came from various firms and private individuals, and from a yearly grant of £1,000 for five years from the Trustees of the Carnegie United Kingdom Trust. This grant was later renewed and increased for another five years. Furthermore, the Carnegie Trustees made a special grant of £6,000 to enable a comprehensive scheme of research to be undertaken. This is sufficient evidence of the confidence reposed in the Institute by the Trustees. The National Institute of Industrial Psychology must have fully justified its existence in the opinion of all concerned. You will realize why that is so when you read below some of the actual results of the Institute's labours. The Institute's work for industrial and commercial firms covers the following matters:

1. Movements of the worker.
2. Methods of training.
3. Tests for the selection of the most suitable workers for different kinds of work.
4. Interest in work and reduction of monotony.
5. Distribution of periods of work and rest.
6. Reduction of waste.
7. Arrangement of materials and design of implements.
8. Layout of plant.
9. Effects of illumination, ventilation, etc., on efficiency.

In an appeal which the Institute is now launching for £60,000, the following actual results obtained are given under the several headings just cited:

1. *Movements of the Worker.*

Good methods and rhythm in work save waste of effort and increase output. Here are some of the results of the application of motion study:

Coal Getting	..	..	16% increase in output.
Cake Packing	..	..	31% increase in output.
Tin-Box Making	..	..	40% increase in output.
Chocolate Packing	..	..	35% increase in output.

2. *Methods of Training.*

Traditional methods of training can often be greatly improved, and new workers can be prevented from forming faulty habits of work which lower output. New methods have given the following results in comparison with the old :

Margarine Process	..	37% saving of time.
Chocolate Packing	..	21% increase in output.

3. *Tests for the Selection of the most suitable Workers for different kinds of Work.*

Mental and physical tests of a simple and practical nature can be devised for the selection of workers in any trade. This scientific method ensures from the outset that only the *right* staff are engaged. The tests are easy to apply ; the gain is great. Output, *esprit de corps* and happiness are all increased if the square pegs are fitted into the square holes.

Spinning Mill	..	Percentage of discharges reduced from 30 to 13.
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4. *Interest in Work and the Reduction of Monotony.*

Industrial processes are getting ever more mechanical and monotonous ; and monotony sometimes has the effect of dulling the brains of the workers and lessening their capacity. Repetition work cannot be eliminated from industry, but methods adopted to combat the feeling of boredom have been amply repaid :

Sweet Packing	..	14% increase in output.
Currency Note Sorting	..	Working day shortened by 30 minutes with no loss of output.
Fruit Sorting	..	Output doubled.

5. *Distribution of Periods of Work and Rest.*

The introduction of rest-pauses has given excellent results. (NOTE.—The precise conditions *must* be determined scientifically ; otherwise the result is likely to be disappointing.)

Laundry Work	..	4% increase in total output.
Fancy Goods	..	5% increase in total output.
Sweet Packing	..	5% increase in total output.
Needlework	..	8% increase in piece-rate earnings.
Printing Works	..	8% increase in speed of work.
Tapestry Works	..	10% increase in piece-rate earnings.

6. *Reduction of Waste.*

The causes of spoilt work, breakages and other sheer waste of this kind are very often psychological. It is easy enough to blame the workers for “carelessness”, but the

psychologist often finds that so-called "carelessness" is directly due to worry, rush or overstrain. By attacking waste at its source, savings such as the following are possible :

Teashops	Breakages of china reduced by 53%.
Restaurant.. ..	Breakages of china reduced by 44%.
Biscuit Bakery	Consumption of gas reduced by 16%.
Rubber Boots	Spoilt work reduced by 52%.
Biscuit Factory	Waste reduced by 50%.

7. *Arrangement of Materials and Design of Implements.*

Time study reveals unsuspected faults in the design of tools, work-benches, machine controls, and in the flow of materials. Careful re-planning leads to improvements in individual processes such as the following :

Gas Works.. ..	47% saving of time.
Medical Supplies	37% increase of output.
Cash-Desk Work	33% increase in speed of work.
Motor-Car Assembly	31% increase in bonus earnings.
Newspaper Production	30% increase in output.
Telephone Manufacture	Saving of £1,500 per annum.
Tapestry Works	50% increase in output.

8. *Layout of Plant.*

Waste of working time due to awkward layout of plant or to faulty dovetailing of the processes is an important and universal source of high costs; it also causes deterioration in the 'morale' of the worker. Great improvement can be effected by expert time and movement study :

Oil Refinery	Annual saving of £4,000 on a single outlay of £5,000.
Motor-Car Body Building.. ..	Institute's work largely instrumental in trebling the production of finished cars.
Woollen Mill	Saving of £700 on costs of new layout.
Tapestry Works	Percentage of late deliveries reduced from 63 to 35.

9. *Effects of Illumination, Ventilation, etc., on Efficiency.*

Brilliant lighting is not necessarily good lighting. It *pays* to study the physiological aspect. Similarly with ventilation and other environmental factors. Some of the results of changes introduced are given below :

Coal Getting	14% increase in output.
Sweet Packing	10% increase in output.
Cutting Shapes	6% increase in output.
Motor-Car Assembly	4.5% reduction in defective work.
Inspection Process	7% increase in speed of work.

10. *Vocational Guidance.*

"Follow-up" of one hundred children who had been psychologically tested and given advice on the choice of an occupation on leaving school showed that :

Of those who had followed the advice given, more than 80% were satisfied with their work, prospects and pay.

Of those who had not followed the advice given, less than 40% were satisfied.

It will doubtless be admitted that these results are almost startling. Yet they are thoroughly authenticated. It will naturally be asked : What is being done in Sydney where costs of production are so ruinously high, and the worker, on the whole, so restive ? By way of answer it can be said that in Sydney, almost three years ago, a similar institute was formed, called the Australian Institute of Industrial Psychology. This Institute was formed as a result of the energy exercised by my colleague, Dr. A. H. Martin, Lecturer on Psychology at the University of Sydney, and on the initiative of the Chamber of Manufactures of this city. The address of the Institute is : Manufacturers' House, 26 O'Connell Street, Sydney. The Australian Institute is affiliated with the London Institute, and Dr. Martin, the Honorary Director here, is in close touch with Dr. Myers, the Director of the London Institute. The work done by the Australian Institute, as shown by its annual reports, has been remarkably successful, especially in the matter of vocational guidance. For a relatively small fee a person can receive a comprehensive examination according to recognized and standardized procedure along with a report containing expert advice which it pays to follow. Good work has also been done here in business and factories, but this aspect has been retarded by lack of funds and lack of recognition of what the Institute can do. This lack of financial support is deplorable. For example, the Government has made no grant, though almost the whole of its efforts are bent upon settling empirically the problems which the Institute attacks scientifically. Nor has the National Research Council, although its task is precisely a national one, shown the slightest inclination to help.

The Institute, therefore, must maintain itself from members' subscriptions and from the fees paid for work done under an Honorary Director. It is a tribute to him that the Institute has been so successful under these parsimonious and restricted conditions. How different the picture from that one is able to draw of the support given to the London Institute !

DISCUSSION.

ON THE PASSING OF THE PROBLEM OF TIME.

By C. WOOD, B.A.,
Melbourne.

ONE emerges from the perusal of Professor Gunn's exhaustive survey of the history of "The Problem of Time" with a feeling of being left unseeing with excess of light.

The chapter on "Time in Contemporary Metaphysics" in particular presents a dazzling pageant of brilliant thinkers highly trained in the art of cogent reasoning, fully abreast of scientific thought, fortunately for us, unhampered by the inarticulateness so dear to Carlyle and all intent on that same problem. And yet, to one's astonishment, this galaxy of experienced thinkers has not succeeded in giving the knock-out blow to that vexatious problem. Each theory seems to meet sooner or later with devastating criticism without its place being filled by a final theory, impregnable because defended by ascertained facts and not merely by impeccable consistency of thought; and all this ill-success in spite of Professor Sellars telling us that never were the times more propitious to the framing of a new philosophy of Life.

Now the negative results of trained thinking of unsurpassable calibre suggest that perhaps a return to the simpler mental life might prove useful in the treatment of the question. That the change can bear merely on the demonstration is inevitable, since all aspects of the objective have come under the notice of one or other investigator. One cannot expect in these days an entirely novel view of Time, but the supporting demonstration may differ from those given in the past owing to the natural growth of thought and the scientific discoveries which have illumined even the lesser intellects of the twentieth century and placed solutions within easy reach which were inaccessible to the giant intellects of the past. At any rate it is worth trying.

Professor Gunn remarks that neither psychology nor physics has been successful in the treatment of the problem and concludes that the ascertainment of the nature of Time pertains to Metaphysics.

Now it may be shown that this is not the case, and that it is only with the assistance of psychology and physics and the elimination of Metaphysics that a solution may be reached.

But the psychological treatment must not take the shape of introspection on the part of subtle thinkers suffused in advance with a highly sophisticated notion of Time; neither must we expect direct assistance from the physicist or the mathematician, these being greater adepts in making unblushing use of fundamental assumptions than in giving an account of their pre-suppositions. But their indirect assistance is of infinite value.

One has of late heard so much of a mysterious "Fourth" that we shall, in the first place, have recourse to physics in order to clarify our vision of the alleged habitat of this dimension. Physics already has been of the greatest assistance in delivering us from that tantalizing, mentally paralysing Thing-in-Itself. We owe it to science that we now justifiably view the world modified by Mind not as an illusion or a delusion hiding Reality from our gaze, but as the resultant of an impact not operative in the primordial stages of our cosmos. We have been taken by the physicist behind the curtain of sensory experience. In this presensory world we have been given to observe a multitude of atomic systems and vagabond electrons, in ceaseless raging agitation wherein the only regulating factor is circumstance. We see no evidence whatsoever of an additional factor bringing rhythm into this chaotic restlessness. All we have before our eyes is velocity, *i.e.*, the manifestation of Life in primordial matter, expressing itself first in the static rotatory movement of the atoms productive of ether, next in the journeyings of atomic systems through space. We also observe the foregatherings productive of substances ultimately assuming the three orthodox dimensions in their solidities—of the "Fourth" we see no sign, whereas the importance of Circumstance is fully evident. This may be of the inner order through internal events, or of the outer order owing to greater or lesser obstructions in the paths of the raging atomic system, or the ejected or absorbed electron. And even though the physicist should feel constrained to admit the operation of cosmic purpose in this welter of atomic systems, still this would not entail the postulation of the Time factor, but of the purposive creation of circumstances of preordained causality. It would seem, therefore, that Time is not as fundamental a factor as the devotee of the "Fourth" has given us to understand.

Let now the human mind come upon the scene, and not only do we get a transformed world enriched beyond the dreams of avarice, but we also find the powers of comparison and abstraction in the most primitive mentality. The caveman must have not only perceived variety of velocity, but compared these in the chase of the swift-footed quarry and the necessity of emulating this greater speed. At every turn this undeveloped mind has had to compare speeds in order to defend or maintain

his precarious existence. Similarly, the process of abstraction must have been operative in the most primitive mind. For this process is automatic at first through the instrumentality of circumstance—the opaqueness of substance, the highly specialized functions of the sense-organs, the narrowing of the field of vision by attention, and the effects of interest and circumstance; thus the stalking of an enemy in the dark narrows the interest to the audible, whilst vision may be left inoperative. It is at a much later stage of man's mental development that the abstract becomes an accredited means to cognition.

The third factor is the habit of speech wherein otherwise evanescent abstracts are given prolonged existence, are preserved intact far beyond their period of utility, maybe.

If we state explicitly the vague state of consciousness which accompanies the pursuit of the quarry, we should, with our more developed powers of speech, represent the caveman as saying: "I must run faster than it." And the ground to be covered will not be viewed in detail but measured with the eye, as his forebears by evolution have done since times immemorial, when the deferred leap of the tiger or the pounce of the preying bird had to be gauged with a certain amount of nicety to be effective.

Later our caveman views the moment of enjoying the fruits of his toils by projecting his mind into the future—a mental act based on his memory of past events. He has learned that a moment of enjoyment will come, and being only interested in the culmination of that period, he abstracts from intervening events which concern the woman. Let there be two women thus occupied and their respective men waiting: and the one served last will make unpleasant observations to his slower mate. To express his discontent he will have recourse to blows, but these will require explanation in order to prevent a recurrence. The explanation can be given by pointing to the other man eating his food with grunts of satisfaction and an unmolested mate by his side. On the part of the woman the act of understanding the meaning of the man's annoyance will gradually evolve the notions of "before" or "after" or "quicker", according to the point of view assumed. Herein lies dormant the notion of Time, *i.e.*, a *span of life cosmic or personal* according to the event, but always in the last analysis a span of life viewed apart from events. The dormant abstract gradually is brought into full view as the powers of speech develop. It is then named and duly preserved in language. The matrix of the idea of time is therefore pragmatic life in its various manifestations from the purely spatial motion of primordial matter to the growth of the organism or purely human pragmata. And from this simple abstract has evolved

the idea of pure Being or the Absolute—the ideal of an eventless life of which we never have had experience. Time being what it is, it follows that a metaphysical discussion of its nature must be preceded by the reintegration of this abstract into its matrix. That the term Time should never appear in discussions of this nature is quite evident, since this term has no other nature than a verbal and imaginary one, and therefore is incompatible with the subject-matter of Metaphysics, which deals with the Reality that lies behind the events caused by Life become pragmatic.

The neglect of restoring the abstract to its pristine state in metaphysical discussions will result in incongruities. Thus the change introduced by the translator into Bergson's French title "*Les Données immédiates de la Conscience*" is a case in point. Professor Gunn considers that the thesis is better represented by its English title "Time and Free-Will". As a matter of fact, the English title has no meaning. What intelligible relation can there be between time and free-will? whereas we understand the question of the relation of Life and Free-Will, and we answer this question by pointing out that if on the one hand Life shackles us with circumstances, on the other it induces the acquisition of cognition by means of which man is able to evade, circumvent or use circumstances not of his own making. The relation of Life and Free-Will is that this freedom grows *pari passu* with our toilsomely acquired knowledge of the ways of Life. But this knowledge must not be viewed as gained in opposition to Life but as acquired by the exercise of a given mental equipment similarly provided by Life—by the instinct of cognition, in fact. So that we find that it is Life itself that helps to overcome a difficulty arising from the essentially natural evolution of man's somatic and mental aspects.

Neither should the expression Space-Time-Continuum be allowed to impress our minds too much. For if we replace the abstract by the name of the fact, we get Space-Velocity-Continuum, which simply expresses the obvious fact that space conditions motion, a statement which does not in any way further cognition by taking us to depths left unplumbed by simple sensory awareness. This expression can have cognizing value only by remaining on the *terra firma* of the physicist, in which case it expresses the necessity of adding a reference to the moment of observation in every appreciation of the orthodox spatial dimensions, seen as these are only under the ever-shifting conditions of cosmic existence. But even then we do not escape from the blight of the obvious. For the most primitive intellect was successfully taught by experience the necessity of adding a fourth consideration to size for the sake of safety. Thus the caveman who had seen the mastodon

at close quarters and now perceives the enemy at a distance, did not repeat the mistake of underestimating its naturally ample proportions when reduced by distance. He will have learned to take note of what we should call the moment of observation, responding mutely to the fact that in a world of essentially pragmatic beings (and pragmatic astral objects) a moment sooner or later must make a difference in man's perception of their dimensions.

Does it not seem that the simple process of catching the abstract young and reintegrating it into its matrix places the problem of the nature of Time within the grasp of even lesser intellects? that in fact, by this treatment, it loses all claim to being the "most baffling", the most difficult of metaphysical problems and all right to a capital "T"? As a matter of fact, the element of problem has been brought to bear on its true objective, *i.e.*, the nature of Life, and here it would seem that we have reached the portals of metaphysical theology.

But the difficulties, the pitfalls that lay between cognizing man and this particular quarry cannot be denied nor overestimated.

Man had to deal with an abstract from a reality known to him indirectly only by what it does. Even the physicist has to accept pragmatic Life in relation to the phenomena that engross his attention; the biologist has to take for granted the factor which has produced the wonder of a complex organism wherein the difficulty is perfectly solved of preserving pragmatic diversity in complete equally egotistically pragmatic unity, and, as Professor Julian Huxley puts it, regulated somehow by an "idea of the whole" which leaves the biologist in wonderment. The phenomenon of voluntary action, the maladies of the Will and the pragmatic assumptions of the scientist enable one to trace pure thought as a manifestation of Life, but never to come in immediate contact with the Reality which expresses itself in these various ways.

To this truly metacosmic nature of the matrix of this abstract add the obscurity of its origin in a purely utilitarian mental reaction of the most primitive mind; add to this the chances offered by language of giving to an abstract a life independent of facts, and the effect of the change in the status of the process of abstraction when it rises to being a means of scientific investigation—a rise which led to hypostasis in traditional philosophy and to that quaint method of seeking out ultimate Reality by abstraction; again, add to this the ingenious mechanical device of depicting what in the last analysis is a span of cosmic life viewed apart from all the incidents inseparable from it except in imagination—in fact, of visualizing an abstract—and it becomes evident that the

substantialization of time was a foregone conclusion. And not until the physicist had unconsciously come to the rescue by showing us the absence of a time-factor in the presensory universe, and the psychologist had traced its advent upon the application of embryonic human faculties in response to the most primitive conditions of existence, and not in any act of deep thinking on the part of the highly trained metaphysician, could the error be corrected.

SIR ROBERT STOUT.

On Saturday, July 19, Sir Robert Stout, K.C.M.G., late Chief Justice of New Zealand, a member of the Australasian Association of Psychology and Philosophy and a contributor to the Journal, died at his home in Wellington, New Zealand, in his eighty-sixth year. Because of his great age, extensive public service, professional distinction, and scholarship, he had long been regarded as New Zealand's most eminent citizen. In his younger days he is said to have been a fiery controversialist, and New Zealand's first rationalist as also its first democrat of any personal authority. He was a member of the first Parliament elected on the abolition of the provinces, a Minister of the Crown fifty-three years ago, Premier in 1884, and sat in the House of Representatives almost continuously until 1897. He did much to bring national education, manhood suffrage and triennial Parliaments into operation.

First a teacher, he later followed the Law for which profession he showed a marked aptitude. In 1899 he was appointed Chief Justice and remained on the Bench until 1926, when he was called to the Legislative Council. He had been a member of the Judicial Committee of the Privy Council since 1921, and received honorary degrees from the Universities of Oxford, Edinburgh, and Manchester. During most of his life he was a member of the Senate of the University of New Zealand, and its Chancellor for over twenty years.

Sir Robert retained his intellectual powers along with advancing age, and his interests touched the intellectual life of the community at many points. He contributed the first article of the first number of this Journal almost eight years ago, and has since contributed other articles. It is with great regret that we record his death, and extend our condolences to Lady Stout and his family as also to our New Zealand colleagues who will miss his erect and stately figure and his keen interest in their labours.

RESEARCHES AND REPORTS.

THE FIRST INTERNATIONAL CONGRESS ON MENTAL HYGIENE.

By H. E. FIELD, M.A., Rockefeller Fellow,
Canterbury College, Christchurch, New Zealand.

THE First International Congress on Mental Hygiene, held in Washington, D.C., U.S.A., May 5 to May 10, 1930, was conspicuously successful. There was a wide range of scientific papers, which were printed in advance, read in abstract and discussed, good facilities, formal and informal, for the interchange of ideas and experiences, besides excellent social occasions. Members of the Congress had the privilege of attending the sessions of the American Psychiatric Association and of the American Psycho-analytic Association. Three thousand members were present, including delegates from fifty-two countries. Dr. Ralph A. Noble was the delegate from Australasia. U.S.S.R. sent three delegates. The administrative machinery was smooth running and effective. Officially and unofficially the hospitality of the Americans was most generous. Clifford W. Beers, founder of the movement, whose early dramatic experience in the realm of psychosis, and whose subsequent efforts to awaken public conscience towards the mentally ill and towards creating better conditions for positive mental health, have become known the world over, was fittingly honoured. While mental hygiene was launched with the major objects of improving the condition of the insane and of educating the public in the prevention of mental disease, its current literature and the proceedings of the present conference indicate that it is coming to assume a more widely inclusive aim. In fact, as Mr. Beers himself pointed out, improved care for the insane is receiving little attention from the movement at the present phase of its development.

It is gratifying to observe growing recognition, on an international scale, of the need for preventive use of psychological and psychiatric knowledge. North America is the present stronghold of mental hygiene. While facilities for creating awareness of, and for meeting, this group of needs are very far indeed from adequate, this country has a growing number of well-organized habit clinics, child guidance clinics, court clinics, co-ordinated agencies for trained social workers, and associations for propaganda, parental consultation and other related branches of public education. Mental health is receiving attention from the higher-grade newspapers, while in the programme of the President's Commission on Child Welfare it is a major theme. Naturally, the American experience formed the principal content of the Congress material, and its influence on Europe was distinctly marked in the papers and discussions of delegates.

Since there are mental hygiene problems in almost all fields of human relationship, it is not surprising that some thinkers go to the extreme of considering every science of mankind as a department of mental hygiene. Its main function is plainly prophylaxis, with psychology, psycho-analysis and psychiatry as the most direct sources of data and methods. When they come to stress the positive side, mental hygienists tend to draw over-many issues to their specialty, and to assume as part of their field, problems which are more safely considered in the disciplines of anthropology, economics and social ethics. While the principles of mental prophylaxis should be brought persistently before the specialists of these related fields, over-expansiveness of the new movement cannot but lead to loose thinking, confusion of practical issues and failure to preserve due balance among the various motives for well-being. Health can never be the apex in the hierarchy of pursued values of a healthy society.

The need for research and self-criticism is largely overlooked by groups interested in human betterment and in the necessary education of the public opinion. The value of clinics of a very special type is, in this case, too readily taken for granted,¹ and little provision is made for checking present efforts by diverse experiments in organization. Child guidance clinics on the model of the excellent New York Institute are being steadily transplanted into different parts of North America as well as elsewhere: *vide* the recent establishment in London. Such extension is almost certain to continue, but it is hoped that experimental units more closely related to the regular educational procedure will be given fuller consideration. Well-grounded and well-planned moral education should not be long in growing out of the primarily curative work being done in the clinics. The present facilities might often, with wisdom and economy, be applied to the teacher and teacher in training, instead of directly to the child.

Too little stress was laid on the dependence of mental hygiene upon inquiries of an essentially anthropological, sociological, ethical and economic character. The task of linking up specialist studies on these lines with the work of the movement was similarly underestimated. Psychiatric social work easily becomes a blanket type of concept covering all phases of the social problem. For certain immediate purposes of the clinic this is sound enough, but, it should be pointed out with reference to the long period, that, while most American social workers are professionals in a high sense of the term, they appear on the whole, by training and opportunity, to be better equipped for directed treatment work and for social manipulation of a straightforward opportunist type, and more limited in respect to the functions of reflection and critical evaluation.

On the part of some there is evidence of desire to widen unduly the range of functions and problems to be regarded as exclusively medical. However, the writings of men eminent in the field, including Healy, Thom, and Plant, show, not this, but a clear recognition of the need for broad professional co-operation. Since psychological and psychiatric principles are bound to play an increasing part in directing the normal life process, entrenchment of an extreme delineation of professional functions must inevitably lead to a stereotyped procedure on the one hand, to weakened opportunities for training, and a barrenness due to detachment from vital and integrating purposes, on the other. Concerning the need for stocktaking in the child guidance movement, Glueck² says:

"In the meantime it is safe to predict that the findings of such a survey, as regards both its curative and preventive aspects, will depend less upon those features of the child guidance enterprise which have lent themselves most readily to a rigid standardization and to popular acceptance than upon the kind of conception of the nature of man and the kind of psychological theory that influenced its procedure."

There is urgent need for pedagogically-minded physicians, psychologists and social scientists, to work in the area between the medical and educational as these fields have been conventionally understood. An attitude which is exploratory and pedagogical is essential in social and moral education: this applies particularly to the cultivation of attitudes and insights in respect to social obligation, family relations including sex and love, personal renunciation. The background of educators and therapists in this sphere will include with advantage anthropology, sociology, ethics and philosophy, as well as biology, psychology and psychiatry.

The proceedings of the Congress are to be available shortly. They will be an important addition to the shelves of the University libraries and of special interest to the members of this Association.

¹ Glueck, Bernard: "Psycho-analysis and Child Guidance", Proceedings, Advance Printing, Wednesday Morning, May 7, Session A.

² Glueck, Bernard: "Psycho-analysis and Child Guidance", Proceedings Advance Printing, Wednesday Morning, May 7, Session A.

THE DIFFERENCE OF EMOTIONAL STABILITY IN GIRLS OF DIFFERENT AGES.¹

By MARJORIE MIRE, B.A.,
Psychological Laboratory, University of Sydney.

INTRODUCTION.

THIS test was undertaken to ascertain whether there is a difference in general emotivity in girls of different ages, as alleged by Mathews,² and whether this is greater in older than in younger subjects. Mathews used a questionnaire to which the subject had to answer "yes" or "no", the percentage of unfavourable or abnormal answers being grouped under headings of age and sex. She found that whereas the percentage tended to decrease with age in boys, that of the girls tended to increase and was more variable. The scores showed great variety in range and overlapping of groups. Kimmins,³ in investigating children's dreams, found fear dreams more frequent in boys than in girls of under fourteen years, but the boys' dreams tended to decrease after that age while the girls' did not. This shows a correspondence with Mathews' results.

In the present investigation one hundred subjects were tested in five age groups. The main part of the test consisted in a study of emotivity as revealed by the galvanometer and the correlation of this with a questionnaire, based on Mathews' questionnaire, and designed to indicate slightly neurotic tendencies. Reaction times to all word-stimuli were also noted.

PROCEDURE.

The subject was connected in a circuit with the galvanometer⁴ and was given a series of emotionally-toned word-stimuli to which she was told to respond as quickly as possible with the first word that occurred to her. Deflections and reaction times were observed. The words, which were twenty in number, were interspersed with sudden physical stimuli, such as a flash of light, a pin prick, a loud noise, and a strong odour (sal volatile).

The subject was then told to look hard at large coloured cards (red, green, yellow, and blue), each of which was displayed for ten seconds. The amount of galvanometer deflections was carefully noted.

A simple problem in mental arithmetic was next given, and the subject was told in as discouraging a voice as was possible that her answer was wrong. Another problem was given and the subject was this time informed that the answer was correct. This was to find out whether the galvanometer recorded the effect of slight discouragement or encouragement.

The second part of the experiment consisted of a series of twenty questions, including such typical ones as:

"Have you ever wished to run away from home?"

"Do you ever dream of people being dead?"

"Are you afraid of the dark?"

"Do you like to be by yourself better than with other people?"

"Did you ever wish you had never been born?"

The negative answer to such questions was considered normal, and the affirmative abnormal or unfavourable. The percentage of unfavourable answers was recorded and correlated with the galvanic deflections.

¹ Acknowledgments are due to Dr. A. H. Martin for direction and advice in this problem.

² *Journal of Delinquency*, Vol. VIII, January, 1923.

³ Kimmins, "Children's Dreams".

⁴ The instrument used was described in a previous article in this Journal: "Some New Apparatus for the Psychogalvanic Reflex", Bellingham, Smith and Martin; June, 1928.

RESULTS.

TABLE I.

Table of Averages for Each Age Group.

Groups (20 in each).	Galvanic Deflections.	Reaction Times.	Questionnaire.
I. Under 12 years	30.5	65.3	26.8
II. 12-14 years	31.5	57.6	36
III. 14-16 years	47.7	42.3	32.2
IV. 16-18 years	70.7	55	35.6
V. Over 18 years.. ..	73.3	49.3	42.1

Table I shows the average galvanic deflections for each age group, the reaction times in seconds to the twenty words, and the percentage of unfavourable answers in the questionnaire. It indicates a considerable increase in galvanic deflections with age and a corresponding increase in the percentage of the questionnaire, but a decrease in the reaction times.

TABLE II.

Table of Correlations.

Reflex and Questionnaire.	Reflex and Reaction Times.	Questionnaire and Reaction Times.
0.67 ± 0.022	-0.42 ± 0.052	-0.48 ± 0.055

Table II shows the correlations between the galvanic reflex, the percentage of unfavourable replies in the questionnaire and the reaction times. As the averages have already suggested, there is a fairly high positive correlation between the reflex and the questionnaire, but the other two correlations are negative. The probable error is relatively low in each case.

TABLE III.

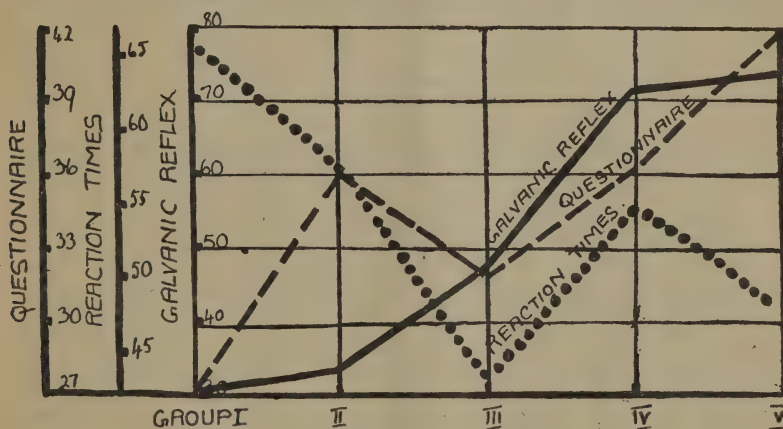
Age Group.	Galvanic Reflex.				Reaction Times.				Questionnaire.			
	Upper Quartile.	Lower Quartile.	Quartile Deviation.	Median.	Upper Quartile.	Lower Quartile.	Quartile Deviation.	Median.	Upper Quartile.	Lower Quartile.	Quartile Deviation.	Median.
I. Under 12 years ..	50	10	20	30	67.5	47.5	10	62.5	37.5	17.5	10	25.5
II. 12-14 years	50	10	20	30	85.5	37.5	24	57.5	42.5	22.5	10	37
III. 14-16 years	110	10	50	40	57.5	32.5	12.5	42.5	42.5	22.5	10	32.5
IV. 16-18 years	80	40	20	70	67.5	42.5	12.5	57.5	42.5	27.5	7.5	37.5
V. Over 18 years ..	130	30	50	50	62.5	32.5	15	50	52.5	22.5	15	42.5

Table III shows the dispersion of the scores. . There is a considerable range of scores between the upper and lower quartiles, and hence the quartile deviation for each age group is fairly large and there is considerable overlapping of groups.

CONCLUSIONS.

These results, similar to those obtained from a questionnaire by Mathews, tend to show a steady increase in emotivity in girls from twelve to fourteen years, after which it seems to remain fairly stable, although slightly greater in the older subjects.

The percentage of slightly abnormal replies in the questionnaire shows a steady increase from younger to older girls, indicating that the latter have a stronger tendency to slightly neurotic states, while the former are remarkably free from them. The questionnaire is significant in that it shows a fairly high correlation (0.67) with the psycho-galvanic reflex. The graph which is plotted below also demonstrates a fairly close agreement.



GRAPH SHOWING THE RELATIONSHIP OF THE REFLEX, REACTION TIMES AND QUESTIONNAIRE.

The increase in emotivity is accompanied by a corresponding decrease in reaction times, the correlation being -0.42 . The latter is due to the increase of the intelligence factor. The younger children are very slow in reproducing their associations, and for them the reaction time method is obviously not a good complex indicator, except in comparison with their own age norms and individual averages. It is more significant for the older subjects, who have a greater facility in the flow of ideas and tend to hesitate only when confused.

The investigation of the effect of discouragement and encouragement shows negative results, and it is possible that the galvanometer is not a suitable means of testing this.

The observation of the effect of primary colours yielded better results. Out of the hundred subjects forty-four responded in some way to colour, twenty of these being mainly or solely to red. This supports the popular theory that red is a dynamic colour. The responses to colour increase, on the whole, with the age of the subject, so they may be due to some association rather than to the nature of the colour itself. It was found that large responses did not always coincide with the favourite or least-

favoured colours, but when they did it was always the least-favoured colour that caused the greatest response, thus indicating that unpleasant feeling-tone registers more readily.

Word-stimuli were productive of much greater responses and show better than anything else the increase of emotivity. The words "kiss", "love", "marriage", "self", "helpless", caused large responses among the older girls; while the younger ones responded readily to "blood", "slimy", "God", "tremble". In many cases there were fairly large responses to the first three or four words, but these became more normal as the tension relaxed.

The sudden physical stimuli caused the greatest deflections, and the responses they aroused seemed to be of a cruder nature than the word associations. It is interesting that the odour (sal volatile) usually caused the greatest deflection of all, due doubtless to its painful effect. This again shows the readiness of the galvanometer to register unpleasant feeling-tone.

Although not finally conclusive, these results are indicative of an increase in general emotivity and instability in girls from nine to twenty-four years, this increase being most noticeable after the age of fourteen or fifteen years.

REVIEWS.

SOCIAL AND POLITICAL IDEAS OF SOME GREAT FRENCH THINKERS OF THE AGE OF REASON. Edited by F. J. C. Hearnshaw. (Harrap, London.) 252 pp. Price: 7s. 6d.

This book is the fifth of the King's College series of lectures on social and political ideas. Professor Hearnshaw has edited the volumes so as to form a continuous study of political thought from mediaeval times. The present volume deals with that portion of the eighteenth century in France (1715-1789), somewhat misleadingly called "The Age of Reason." The Age of Questioning, perhaps,—and of questioning which inevitably took the form of attacks on existing institutions and social conceptions,—but scarcely of undiluted reason. Rousseau was certainly aggressively rationalistic, but what of the romanticism of Voltaire, Montesquieu, and even Holbach, of the tropical dreams of Bernardin de Saint-Pierre, of the arrant sentimentalism of the *Nouvelle Héloïse* (1762), of the idealism of Condorcet, and of the fashionable *exotisme*? Even the philosophy of the arch-priest, Rousseau, was his own self romantically transformed to the utmost,—as Professor Laski says, his autobiography externalized and idealized into a programme. Romanticism found a hothouse in this atmosphere. There was the further misconception about this age to clear away, in that it had to be established that no causal relationship could be traced between the writings of the philosophers and the later reforms. It has been all too easy to read history backwards in this connection and attribute partly or even completely independent movements to the influence of earlier writings. Without them, of course, the movements would not have been the same; but one can go little further than this.

Nevertheless, the century was marked from its predecessors by a common-sense examination of conditions that had hitherto been beyond the field of analysis. Classical monarchy, religion, the whole of the sanctions of human society were subjected to tests which came down to the principles of Cartesianism. From certain *a priori* assumptions, deemed universally valid, the philosophers argued in a scientific manner and transformed the French mind. Bossuet and Boileau could not have understood the methods of Diderot or Mably. With reason went optimism, and, close behind, its illegitimate sister, romanticism. Hence, too, the cosmopolitanism of Voltaire and Rousseau (though Professor Laski makes the point that this was originally a revulsion against the tradition of Louis XIV).

But the positive position thus reached was in no sense the correlate of the negative criticism. The philosophers offered no corresponding alternative for the systems their rationalism broke down. Criticizing religion did not make them atheists (save for the minority led by Diderot and Holbach); attacking absolutism left them still far from democracy, as Voltaire's position showed; and assaults on economic feudalism drove few to follow Mably and Morelly in communistic solutions. Constitutionalism and toleration were the bournes beyond which the majority would not go,—a Meslier had to rant his dithyrambs to the revolutionary spirit in secret. "They are stout *bourgeois* to whom the rights of property are fundamental". In short, they did not go beyond analysis, they provided only the method. In the main, practical system-making was not theirs, and even Rousseau was torn both ways in this respect. Their method discredited the past, but the past really died of suicide.

As will be evident, this book, especially the general survey of Laski, reconsiders the perspective of the Age of Reason. The detailed studies of Bossuet and Fénelon, of Voltaire and Montesquieu and Rousseau, add little to existing interpretation, but the chapters on Helvétius and Holbach, on Mably and Morelly serve a useful purpose in re-stating the place of these lesser-known philosophers. The real Holbach is extracted from his over-prolific writings in the *Encyclopædia* and made to stand on his unduly neglected political theory, being correctly linked with Locke instead of Rousseau. Morelly is shown in all his communism, and Mably is viewed in his proper position as one of the best-known philosophers in his own time. It was but natural that the more conventional figures should absorb most space, but what gives the book its value is the general statement of Professor Laski and the resuscitation of the lesser men from partial oblivion.

STEPHEN H. ROBERTS.

KANT: SELECTIONS. Edited by T. M. Greene, Associate-Professor of Philosophy, Princeton University. Pp. lxxi, 526. New York: Charles Scribner's Sons. 1929.

This work belongs to the Philosophical Series of Scribner's Modern Student's Library, under the general editorship of Professor R. B. Perry, which comprises selections from the writings of the leading philosophers. The separate volumes enable the student to handle effectively much more than is possible in such a useful work as Rand's "Modern Classical Philosophers". Greene's "Selections from Kant" will compare favourably with its well-known predecessor by John Watson, and it has the advantage of covering more ground, though in essentials there is little to choose as between the two. In view of the opportunity offered the editor, it is a pity that no room was found for extracts from Kant's "Religion within the Limits of Pure Reason", which is sometimes known as the fourth Critique. Though there is little to criticize as to Greene's "Selections" on the whole, yet it would have been better if he had not merged the "Fundamental Principles" and the "Critique of Practical Reason" under the heading of "Theory of Ethics". He has had perforce to make new captions which do not correspond well with the originals of Kant. He accordingly mixes up the treatment of the Categorical Imperative and the Problem of Freedom and unfortunately omits the whole of the "Critical Examination of the Analytic". He also appears to confuse, as so many do, the binder's title of Abbott's translations of Kant's ethical works with the title of the work itself. It may be noted that the Selections are from the translations of Max Müller, T. K. Abbott, and J. H. Bernard. The editor has contributed an excellent expository introduction which should prove most helpful to the student and general reader.

E. MORRIS MILLER.

PERSONAL SALESMANSHIP: An Outline of the Fundamental Principles of Successful Selling. By R. Simmat, M.A. London: Sir Isaac Pitman & Sons. 1930. Price: 5s.

There have appeared, from time to time, books on salesmanship written by academic psychologists, and others from the pen of practical salesmen. This book, however, is written by an Australian who first graduated as an honours student and research scholar in Psychology and who afterwards betook himself to the practical fields of commercial life. After experience in Sydney he proceeded to England and worked on the psychological and market research staff of the firm of Messrs. Rowntree & Co., and the book is the outcome of these combined experiences.

The first chapter deals with an analysis of the personal factors of salesmanship and urges self-analysis with a view to the correction of individual defects. The second and succeeding chapters set out, with outstanding clarity and perspicacity, the duties of the salesman and his various types of prospective purchasers, especially in regard to the different kinds of businesses. This description of "marketing" is a new feature in such books.

Chapter VI then takes up the problem of the client, how to approach, interview him and secure an order. In these discussions not only is the practical side set forth as to method and procedure, but the underlying psychological principles are clearly stated as a guide.

As a test of its value the book was shown to two heads of two important sales organizations in the city, with the request that they should peruse it carefully and give an opinion on its merits. In both cases the book has been highly commended and copies ordered. Such a practical test as this is a guarantee of the actual value of the book to the salesman, while, on the other hand, the exposition of psychological principles may be commended from the theoretical side. For use as a personal guide therefore, or as a text for classes in salesmanship, one can have no hesitation in recommending it without reservation to those interested.

A. H. MARTIN.

TESTS OF MECHANICAL ABILITY. By F. M. Earle, A. Macrae and others. Special Report No. 3. National Institute of Industrial Psychology, London, 1930. Price: 3s. 6d.

This investigation into tests of mechanical constructiveness and ingenuity was carried out by the Vocational Guidance Section of the National Institute of Industrial Psychology in London. The test entailing the putting together of "ten simple mechanisms" originated with Dr. Stenquist, of Teachers' College, Columbia University, New York City. The psychological work of the American Army showed that the results of such a test differed considerably from those of intelligence tests, and the work was taken up at this point by the investigators of the National Institute. After a considerable amount of experimentation they finally decided on a combination of objects which included seven of the originals but replaced three others which were more British in general experience. Their results show a decided correlation (approximately $R=0.40$) with form relationships and one only of $R=\text{less than } 0.10$ with general intelligence or general ability. Working by means of the procedure of partial correlations, they further concluded that two factors were predominant in such a test. These factors are (a) ability to solve concrete mechanical problems which may be regarded as ability to observe mechanical relationships or to "think" in such terms, as distinct from mere learning by first disassembling and then reconstructing the objects; and (b) manipulative ability or dexterity.

In addition, the report includes percentile scores of the tests for certain ages. These results, showing important divergences of score from the original Stenquist test, emphasize the necessity of careful local standardization

before general use. Their vocational value for certain trades is emphasized. Thus the test is more significant for fitters and turners than for electrical engineers and carpenters. To all engaged in the work of vocational psychology the box of tests and the report is therefore of great importance.

A. H. MARTIN.

CATTELL GROUP INTELLIGENCE TESTS. By R. B. Cattell, B.Sc., Ph.D. London: Harrap & Co. 1930.

The tests consist of three scales each with two forms, A and B, the latter for alternative use in re-testing before the lapse of twelve months. The first scale measures the general ability of children from eight to eleven years of age, the second, those from eleven to fifteen years of age, and Scale No. III is for higher grades of intelligence. The accompanying handbook includes a foreword by Professor Spearman.

The tests purport to measure the type of general ability most highly saturated with "g".

The individual test groups include such items as analogies, absurdities, sentence and picture completion, inferences and synonyms. In the analogies test one might perhaps question the advisability of including space forms as well as words. It might reasonably be inferred as a result of other independent investigations that the factor operative in space relationships might be regarded as different from that operating in analogous ideas. Probably the author of the tests has experimental reason to regard them as the same. At any rate no published work is known to the reviewer which justifies such an inclusion, and it is important for test work that such authority, if any, for the departure from general procedure be quoted.

Additional data such as norms and their interpretation in comparative terms of I.Q. are available, though not included in the sample for review. Their particular use of the tests is for the usual grading of classes and for high school scholarship examination.

A. H. MARTIN.

MORAL LAW AND THE HIGHEST GOOD. By E. Morris Miller. Pp. 235. Macmillan & Co., in association with the Melbourne University Press. Melbourne. 1928. Price: 6s. 6d.

This "Study of Kant's Doctrine of the Highest Good", as the sub-title describes it, is intended to give "a constructive exposition and criticism of the Critique of Practical Reason, setting forth the strong points of Kant's ethics in a favourable light". Considerations of space have made it necessary to omit special treatment of the "theoretical implications of Kant's ethical position", and of his "concept of freedom", but this is to be rectified by reference to Professor Morris Miller's other works, "Kant's Doctrine of Freedom" and "The Basis of Freedom" (Monograph III of the Association's series).

Professor Morris Miller contends that a careful study of Kant's ethical system *from within* "will reveal a more coherent and consistent treatment than is usually admitted by his critics". Now no doubt we obtain answers to most of our critical questions on an author's work by paying closer attention to what he actually says. But it is precisely by concentration on real or apparent inconsistencies that this critical process goes forward. And if, in particular, we try to develop Kant's ethical theory by using his own terminology, we leave such terms as "will", "rational being" and "respect", without the clarification they require.

Reference to two passages may make the issue plainer. Professor Morris Miller considers that Kant's dualism leads him to take too narrow a view of man's moral life, and, especially, too readily to discard *desires* from it. For, it is argued (pp. 10-14), "desires are capable of moral expression, and

partake of the activity of the self"; and the conclusion is reached that "the subject may be so developed morally that desires spring inwardly from the self and reveal a moral foundation". Now if so much is admitted, it follows that there is no "pure will" and no "moral law". In fact, if we get rid of dualism, we cannot recognize any sort of obligation or admit that there is such a thing as "Practical Reason". Such "constructive criticism" as this, then, is actually destructive of what Kant specifically stood for, and succeeds no more than he did in giving a coherent account of "the moral life".

On the other hand, Moore's criticism of Kant in *Principia Ethica* would appear to be regarded as the wrong kind of criticism, the mere search for inconsistencies. Moore argues that it is absurd to say that we are "worthy" of happiness, if happiness is not itself good; and it cannot be, if the good will is the *sole* good. "The strength of Dr. Moore's argument", Professor Miller replies, "rests upon his acceptance of Kant's idea of good will as the 'sole good' without qualification—'Nothing can possibly be conceived in the world, or even out of it, which can be called good without qualification except a good will.' But the passage which contains this statement ends with these words—'Thus a good will appears to constitute the indispensable condition of being worthy of happiness.' And so Kant cannot be said to imply that the 'good will' is the 'sole good'." (Pp. 139, 140.) Thus Moore is answered by the mere repetition of the inconsistency he has pointed out. But it is only through emphasis on the inconsistency that we can succeed in clearing up Kant's argument.

The real point, we find, is not that X (something other than the good will) cannot be "good without qualification", or "intrinsically" good, but that "X without qualification" cannot be good, whereas X *with* a qualification, namely, X *well-willed*, can be good. This, however, does not save Kant's theory either of virtue or of happiness. On the contrary, it appears that he establishes his fundamental point by an *ontological* argument. Such and such things are called good, but they may be badly used. What is there that cannot be badly used? That which is its own use; the pure will that wills its own purity.

This no more establishes the existence of anything than does the verbalism, "A necessary being must exist". But, once the pure will has been assumed, it has to be given a content, and that is done by introducing various things which are supposed to be "determined" by it, and which, as qualified or determined by this "identical" nonentity, are positively good, just as the things determined by the "necessary being" are positively real. Thus morality "extends" to happiness, without making a "law" of it. No doubt there is a kind of ghastly logic about all this, but nothing less than "destructive" criticism, such as Kant himself put forward in the first *Critique*, is required to show its true value. Criticism of his "psychological hedonism" would then, though interesting enough, be of minor importance.

I have endeavoured to indicate the limits which Professor Morris Miller's method imposes upon his presentation of his subject. Within those limits, and in consideration of the many valuable references given, he may be said to have treated it in a way which should make his work of considerable assistance to the student of ethics.

JOHN ANDERSON.

METAPHYSICS AND MODERN RESEARCH. By I. C. Isbyam. With Introduction and Introductory Essay: *The Quest of Spiritual Truth*, by Louis Zangwill. London: The C. W. Daniel Company, Ltd. 1927. Pp. 494. Price: 15s.

If any form of literary censorship could be justified, it would be the interdicting of books on philosophy by literary persons, scientists, statesmen and other amateurs, but especially by the awful tribe of mathematical physicists to which, it appears, Mr. "Isbyam" belongs. Always we have

the straining after profundity, and always the conclusions reached are hackneyed and platitudinous. Philosophers are somewhat to blame for having allowed "meanings" and "personal outlooks" to usurp the place of scientific rigour in the philosophical field. But there have been sufficiently clear and forceful expositions of "Spiritual Pluralism" to make Mr. Isbyam's rambling discourses on "The Ego and Physical Force", "The Ego and Spiritual Truth", and "The Self-Seeker and His Search", obviously uncalled for.

Mr. Isbyam has the candour to admit (p. 412) that if the sole realities are forces or "Ego-entities", relations between them must be unreal. But his method of presentation permits him to avoid considering the consequences of this admission, and he takes no account of such criticisms of the notion of "power" as Hume's. It is enough for him that an Ego may act in a certain spirit, i.e., as he considers, when that spirit or Ego-entity "enters consciousness". And the self-seeker's search is to be advanced by so acting as to entertain the highest spirit that is possible to him.

This is sufficiently ancient news, and, not surprisingly, Mr. Isbyam is afraid that his doctrine may be regarded as hypocritical or self-righteous. But "anyone who makes success in the world minister to the higher entities in him, lies open to that charge. Think no evil: that is your best prophylactic against the venom of hypocrisy in others. There is a well-known piece of modelling very popular, I am told, in Japan—three monkeys, joyously holding their hands, one over its eyes, another over its ears, and the third stopping its mouth with them; inscribed 'See no evil: hear no evil: speak no evil.'" (P. 430.) The natural interpretation of this, it appears to the reviewer, is that the only way to see no evil is not to see at all. Similarly, to think no evil, so far from implying concentration on "higher entities", would mean not thinking at all. In short, Egoism and "higher entities" have been much better defended in the past than in these moralisings of a mathematical physicist. A protest may be registered in passing against the use of barbarous expressions like *Wacapicata*, i.e., "what appears common and peculiar in circumstances antecedent to acts" (of an entity). Mr. Isbyam outdoes Whitehead in the invention of terms as a substitute for discussion.

Mr. Zangwill's historical introduction is rather more interesting, but such statements as that "Pythagoras learnt mathematics in Egypt", and that "we may well assume that Hindu doctrine reached Plato by way of the Pythagoreans" indicate its limitations. There is some excellent criticism of the view that laws of nature are statistical averages (the main point being that there is *no* length of time, or number of tries, in which we can say that deviations from the average will be eliminated), and Mr. Isbyam's doctrine of causation as "predilection" is satisfactorily disposed of. But it is a somewhat hasty assumption that "divine continuous creation" is the only remaining alternative, or indeed an alternative at all.

The whole book shows the bankruptcy of "the personal approach" in philosophy. To cite Plato's dialogues to the contrary is to forget that the person chiefly concerned is Socrates, and that as the dialogues become more philosophical, they become less personal.

JOHN ANDERSON.

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- LE DEVELOPPEMENT MENTAL ET L'INTELLIGENCE. By Henri Pieron. Paris: Felix Alcan. 1929. Price: 10 francs.
- PRINCIPLES OF EMPLOYMENT PSYCHOLOGY. By Harold Ernest Burt. New York: Houghton Mifflin Co. 1926.

- MAN AND THE IMAGE OF GOD. By Hubert M. Foston. London: Macmillan & Co. 1930. Price: 7s. 6d.
- CATTELL GROUP INTELLIGENCE SCALE (with Handbook). By R. B. Cattell. London: George G. Harrap & Co. Price: 3s. 6d.
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- THE MEASUREMENT OF MANUAL DEXTERITIES. By F. M. Earle and others. The National Institute of Industrial Psychology, Aldwych House, London, W.C. 2. Price: 5s.
- THE PSYCHOLOGY OF ADOLESCENCE. By Fowler D. Brooks. London: George G. Harrap & Co. Price: 10s. 6d.
- THE DAWN OF MODERN THOUGHT. By S. H. Mellone. Oxford University Press. London: Humphrey Milford. Price: 4s. 6d.
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No. 40. April, 1930. Decennial—Basic English—In the Press: Editorial. The Sexual Problems of Adolescence and Adult Life (I): F. G. Crookshank. Synæsthesia in Music: P. E. Vernon. The Artistic Process: Curtis Bruen. Mechanism and Vitalism in the Light of Critical Biology: L. von Bertalanffy. The Psychology of Belief: George Lawton.

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Vol. XI. Part 2. April, 1930. The Rôles of Ego and Libido in Development: M. N. Searl. Bisexuality: Douglas Bryan. An Investigation

of the Psychological Factors in Virginity and Ritual Defloration: Sybille L. Yates. On the Physiology of Hysterical Aphonia and Mutism: E. Perepel. The Psychology of Revolutionary Tendencies: C. D. Daly. The Psychology of Transvestism: Otto Fenichel.

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Vol. X. No. 4. March, 1930. Misure di Protezione in Favore della Infanzia in Pericolo Morale: G. Heuyer. Il Tribunale dei Minorenni nel suo Primo Trentennio di Esistenza: M. Levi-Bianchini. Il Matrimonio nella Etiologia di alcune Psicosi: Jacopo Nardi. Osservazioni sul Dispensario di Igiene Mentale: M. Levi-Bianchini. "La Figlia di Jorio" di Gabriele d'Annunzio: Giovanni Dalma. Il Segno Carpologia Genitale nelle Affezioni Traumatiche del Cranio: Antonio Di Luigi.

REVUE NEO-SCOLASTIQUE DE PHILOSOPHIE. Published quarterly by the Société Philosophique de Louvain, 2 Place Cardinal Mercier, Louvain. Annual subscription: 12 belgas.

Vol. XXXI. 2nd Series. No. 24. November, 1929. La Réalité de la Relation Finie d'après Saint Thomas D'Aquin: N. Balthasar. L'Idée de l'Être (III): P. De Munnynck. Une Conception Nouvelle de la Psychique—La "Gestalttheorie": E. Pialat. La Philosophie en Belgique: P. Nève.

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Vol. VI. No. 10. May, 1930. The Boundaries of Arable Cultivation in Victoria: S. Wadham. The Development of Group Settlement in Western Australia: Gordon Taylor. Recent Developments in Australian Banking: D. B. Copland. Review of the Building Industry in Victoria: W. I. Potter. Comparative Costs of Living: C. H. Wickens. Economic Cycles in Australia and New Zealand: Roland Wilson. The Theory of International Trade: E. R. Walker. Reports of the Tariff Board: L. F. Giblin.

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Vol. VII. No. 4. June, 1930. Early Irish Laws and Institutions: Eoin Macneil. Forfeiture of Vehicles and Conveyances under Section 26 of the National Prohibition Act: C. W. Schutter. Equitable Protection of Personal Rights: William F. Walsh. Dean Pound—The Scope of His Life and Work: Lewis C. Cassidy.

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Vol. III. No. 4. As psychoses infantis sob o aspecto medico-social: Ernani Lopes. Os tests de Binet em nossos escolares: Nicolair Cortat Frossard. No. 5. O sexo e a cultura: J. P. Porto-Carrero. Suicidio de menores: A. Moncorvo Filho.

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Commonwealth: P. D. Phillips. No. 6. June. Mexican Penal Principles: Jose Almaraz. Great Britain and the Pacific: Stephen A. Heald. Frank Criticisms of the Kuomintang: Lo Lung-Chi. No. 7. July. Why Explore the Antarctic?: Griffith Taylor. Eighteen Months Past in China: M. T. Z. Tyau. The Changing Soviet Drama: S. Amaglobeli. Japan and the Naval Treaty: Keichi Yamasaki. No. 8. August. Tariff and Trade: Henry F. Grady. Canada and the Pacific: H. F. Angus. Occidental Legal Ideas in Japan: Kenzo Takayanagi. Modern Mongolia: Kuo Tao-Fu.

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THE AUSTRALIAN INTERCOLLEGIAN. Published monthly by the Australian Christian Movement, 182 Collins Street, Melbourne. Subscription: 5s. per annum.

THE MORPETH REVIEW. Edited by E. H. Burgmann, R. S. Lee and A. P. Elkin. Published quarterly at The S. John's College Press, Morpeth. Subscription: 7s. 6d. per annum.

THE MEDICAL JOURNAL OF AUSTRALIA. Sydney. Published weekly. Price: 1s.

This Journal frequently contains articles of great interest to those of our readers who are concerned with Psychiatry or Psychological Medicine.

NOTES AND NEWS.

The Annual Meeting of the Australasian Association of Psychology and Philosophy was held this year in Wellington, New Zealand, on the dates May 12 to 14. The meeting was most successful, all the four New Zealand local branches being represented, and a particularly strong delegation being present from the Auckland branch. The address by the president, Professor W. Anderson, was on "Individuality and Community". The following papers were contributed by members: Miss M. W. Crookes, M.A., "Emergent Evolution"; Mr. H. Becroft, M.A., "Gestalt Psychology"; Dr. I. L. G. Sutherland, "Some Notes on Maori Warfare"; Mr. N. R. McKenzie, B.A., F.R.G.S., "A Modern Survey of an Education District"; Rev. H. K. Archdall, M.A., "Science and Ultimate Truth"; Professor J. Shelley, "Æsthetics"; Mr. J. C. Begg, "Philosophy and Modern Physics"; Professor C. F. Salmond, "Instinct and Human Nature"; the late Mr. E. V. Miller, "Concurrent Systems of Knowledge"; Mr. A. E. Campbell, M.A., "The Contribution of Child Psychology to the Theory of Laughter"; Mr. J. S. Barwell, "A Theory of Laughter"; Dr. Stuart Moore, "The Super-Ego and Some of Its Disorders". All the meetings were well attended and lengthy discussions followed the reading of some of the papers. In the evenings two largely attended public meetings were held, when addresses were given by Professor T. A. Hunter on "Institutions: Social and Anti-Social", and Professor J. Shelley on "The Future of Education in New Zealand".

The Australasian Journal of Psychology and Philosophy

LOCAL BRANCHES.

It was early recognized that certain factors, chief among which might be the size of the Association and the wide distribution of its members throughout Australia and New Zealand, would make it extremely difficult for all members to meet together to hear lectures, or for any other purpose. In consequence, and in view of the importance of discussion in the social sciences, the formation of "Local Branches" of the Association was allowed for in the Association's constitution.

Clause 12 of the "Articles of Association" of the Association is as follows:

"The members of the Association in any given locality shall have the right, upon payment of a special local subscription or otherwise, as they may themselves determine, to call themselves a 'local branch' of the Association, and to hold such meetings as they think fit. Provided, however, that the Association shall not be liable for any undertaking of such 'local branch,' or for any debts it may contract for any reason whatsoever."

The formation of "local branches" of the Association, it will be noted, is entirely dependent upon the wish of the members in any given locality. A local branch may conduct its activities in any way it wishes, subject to the provision in the last part of Clause 12, quoted above. Thus, a given local branch might limit itself to discussions of papers occurring in the Association's Journal; or it might arrange for certain lectures; and so on.

Full membership is limited to members of the Australasian Association of Psychology and Philosophy; but undergraduates who are not members of the Association may be admitted to associate (non-voting) membership of the local branch upon payment of the subscription of 1s. (Such associate members, of course, do not enjoy the privileges of members of the Australasian Association of Psychology and Philosophy.)

Local branches may adopt any constitution that they desire, provided that all full members of a local branch are members of the parent Association. Indeed, constitutions of local branches would naturally tend to differ among themselves, owing to diversity in local conditions.

The value of local branches will consist partly in the fact that they bring together members of the Association, and thus provide opportunities for discussion; but they should also help to strengthen the Association, and this is highly important if THE AUSTRALASIAN JOURNAL OF PSYCHOLOGY AND PHILOSOPHY is to be permanently established.

Any further information may be obtained from the officers of the Association.

SECRETARIES OF LOCAL BRANCHES.

AUCKLAND, N.Z.: Mr. H. E. Becroft, 29 Wariki Road, Mt. Eden, Auckland, New Zealand.

DUNEDIN, N.Z.: Mr. J. M. Bates, Knox College, Dunedin, New Zealand.

MELBOURNE, VICTORIA.—Mr. J. A. L. Henderson, University of Melbourne, Victoria.

SYDNEY, N.S.W.: Mr. G. F. McIntosh, 40 Hardy St., South Ashfield.

WELLINGTON, N.Z.: Dr. I. G. L. Sutherland, Victoria University College, Wellington, New Zealand.

CHRISTCHURCH, N.Z.: Mr. H. E. Field, Canterbury College, Christchurch, New Zealand.

Australasian Association of Psychology and Philosophy

(WITH WHICH IS AFFILIATED THE MELBOURNE UNIVERSITY
PHILOSOPHICAL SOCIETY)

The Association exists for the purpose of promoting the study of Psychology, Philosophy, and Social Science.

Its Journal, which is called THE AUSTRALASIAN JOURNAL OF PSYCHOLOGY AND PHILOSOPHY, is issued quarterly, and publishes original articles on such important subjects as Theoretic and Applied Psychology, Psycho-Analysis, Mental Tests, Philosophy of Religion, Ethics, Sociology, Metaphysic, Education.

The Journal is edited by Professor H. Tasman Lovell, M.A., Ph.D., of Sydney University, with the co-operation of representatives from every University of Australia and New Zealand.

It may be bought most cheaply through membership of The Australasian Association of Psychology and Philosophy.

Membership of this Association is not restricted to University Graduates, but is open to anyone who is interested in Psychology, Philosophy, and Social Science. The annual subscription is 10s., payable in advance. This entitles a member to receive free of all charge THE AUSTRALASIAN JOURNAL OF PSYCHOLOGY AND PHILOSOPHY (quarterly); and also to attend free of charge meetings which the Association may convene for discussion or presentation of papers.

In addition to such meetings of the Association, the members living in any given locality may constitute themselves a "Local Branch" of the Association, and arrange for lectures or discussions as they think fit. Such "Local Branch" groups will gain encouragement from the knowledge that they are parts of a larger body with interests similar to their own. The Journal will be a visible link of connection between all such groups, and will publish brief notes of "Local Branch" meetings.

An annual subscription lasts through a calendar year. Members who join the Association late in the year will at once receive the back numbers of the Journal for that year, and the remaining numbers will be posted to them as they are published.

A large membership of the Association will encourage the publication of original work by Australasian students of the Mental and Social Sciences. Members of the Association are requested to bring the Association to the notice of others who are likely to be interested in it.

Any information will at once be furnished on request to the Hon. Secretary of the Association, Department of Economics, The University, Sydney, New South Wales, or from the Hon. Secretaries of local branches.